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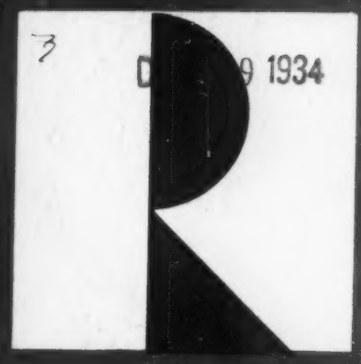

THE ARCHITECTURAL RECORD

1934

12

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THE ARCHITECTURAL RECORD

VOLUME 76 NUMBER 6 DECEMBER, 1934

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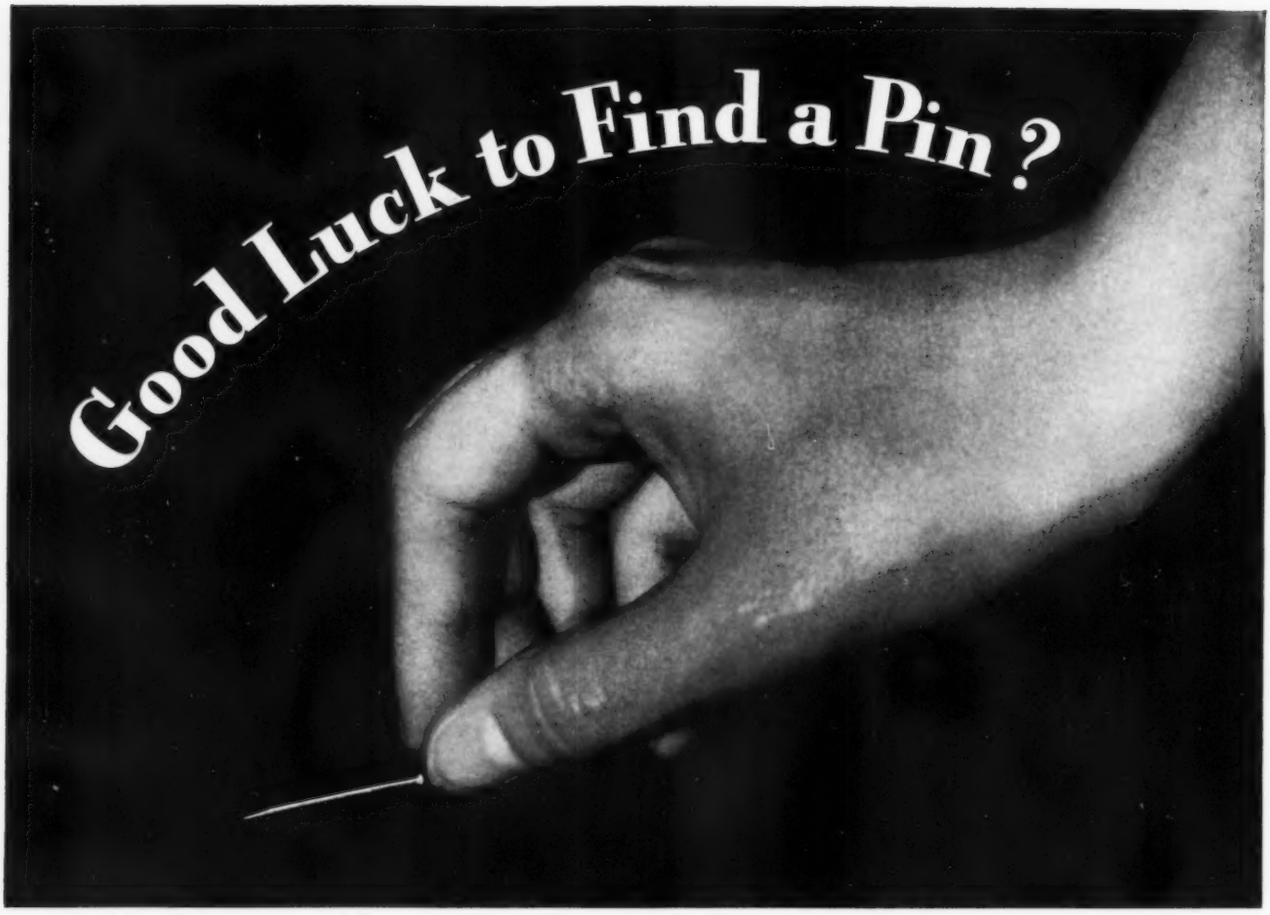
Published monthly by F. W. DODGE CORPORATION, 115-119 West 40th Street, New York. Truman S. Morgan, President; Sanford D. Stockton, Jr., Secretary; Howard J. Barringer, Treasurer. Yearly subscription: United States and Possessions, $3.00; Canada and Foreign, $5.00; Single Copy, 50c. Member Audit Bureau of Circulations and Associated Business Papers, Incorporated. Copyright, 1934, by F. W. Dodge Corporation. All rights reserved. Entered as second class matter May 22, 1902, at the Post Office at New York, N. Y., under the Act of March 3, 1879. Printed in U. S. A.



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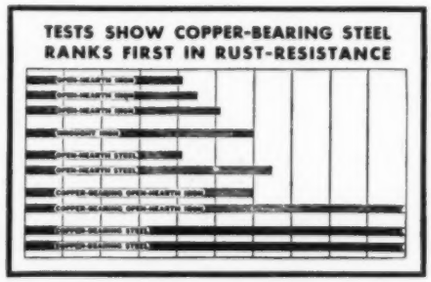

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RAMESES TO ROCKEFELLER. *By Charles Harris Whitaker. Random House, New York.* 1934. $3.50.

This book by C. H. Whitaker, at one time editor of The Journal of The American Institute of Architects, is not a conventional history of architecture. The author applies his seasoned and reasoned views on architecture to the procession of architectural events down to the present time. Mr. Whitaker assumes that building forms which began to take shape in early Egypt were the forerunners of what the Western world calls its architectural heritage. These forms and building shapes were dictated by conditions of living and by materials and known methods of construction. It is to be regretted that the author has not gone back to the life of peoples of the past as the stimulating impulse for creating shapes, inclosures, building groups and towns. In a final chapter Mr. Whitaker speculates on the possibility that man may some day use architecture to build a civilization, reversing the principle that architecture is a consequence of the "variegated pattern of human existence."

Mr. Whitaker has much to say for the craftsman as a responsible agent for the makers of architecture, master builders, painters, goldsmiths and sculptors who saw building as their field for "Art."

Almost half the volume is devoted to American building. "The planning of early America," says the author, "was by anarchy. It was no more in the hands of such craftsmen builders as at least wove charm and serenity into the beauty of pastoral England than heaven is in the hands of the priests. The general pattern was decided and settled by the ways and usages of English landowners." . . . . "As anyone can see by looking realistically at the United States in which he lives—that there is no possible way to get architecture by the land debt process, save in a constantly rising percentage of hovels. . . . . With the rise of the land—inflation skyscraper game, congestion spread to all quarters. All City streets and sidewalks filled up. The more traffic routes, the more traffic. . . . . Plainly, piling debt by inflating land prices by means of herding people and burdening the land with architecture is the same process that leads the deluded clerk to take money from the till, and then to keep on in the wild hope of somehow putting it back." . . . . Finally, he says, Rockefeller Center Buildings in New York "might well be christened the last word in that disorder for which the so-called experts are so skilled in selling to both owner and community. Every ounce of expertness that could be mastered was evidently used to confuse and obscure the social result. It was completely hidden by a series of land-value, architectural and engineering calculations that will have to pass as the consummate example of how realtors, architects and engineers proceed to arrive at what they call a 'solution.' . . . . Whether the lesson has now been learned, or will ever be learned, is anybody's guess. One might suppose that Americans, having suffered enough from the costly uses to which architecture has been put, would now be ready to talk sense about buildings."

Mr. Whitaker's conception of American architecture is at once gloomy, without hope and without proposed remedy. The book is fairly well written and he succeeds in provoking disagreement but more often arousing applause for the courage of sincere convictions.

FARMHOUSE PLANS. *By Wallace Ashby, Chief, Division of Structures, Bureau of Agricultural Engineering, U. S. Department of Agriculture, Farmers' Bulletin No.* 1738, *Washington, D. C.* 70 *pages. Illustrated.* 10 *cents* (*Superintendent of Documents, Washington, D. C.*)

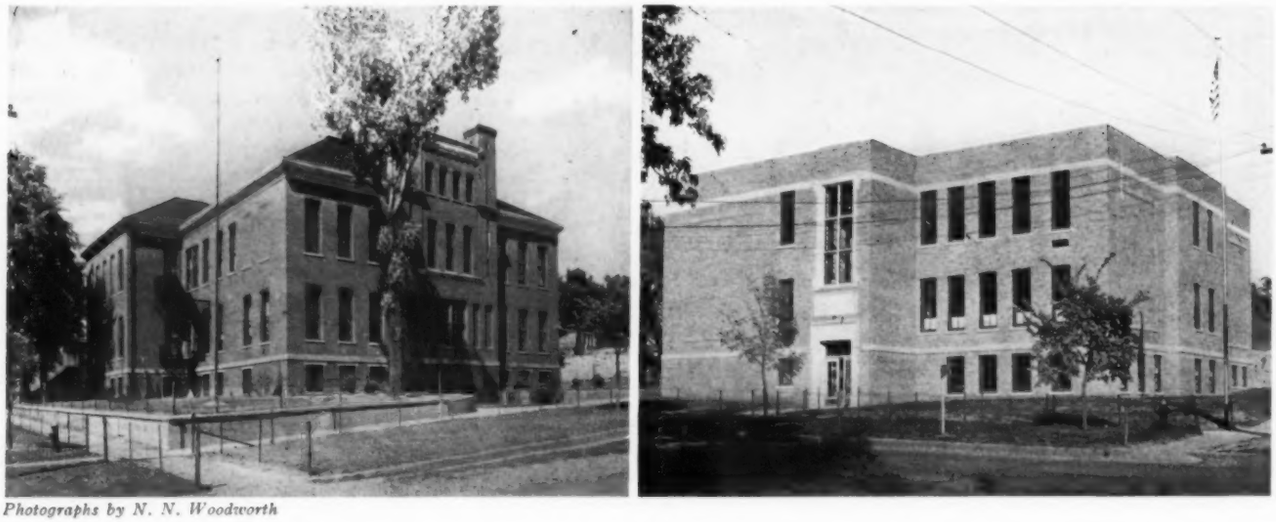
Much useful information is condensed in this bulletin of plans developed in connection with the Farm Housing Survey made early in 1934 by the United States Department of Agriculture and the agricultural colleges of 46 states, with funds provided by the CWA.

The principal purpose of this bulletin is to supply plans for low-cost farm dwellings designed to meet the requirements of the farm operator and his family. Farmhouse requirements are stated in relation to size, comfort and convenience, relation to other buildings and highway, appearance, and safety, and the houses illustrated may, with slight change, be built of any of various construction materials.

A summary of unit costs is included, based on prices and wages prevailing in the spring of 1934, covering cellars, superstructures and porches. Working drawings are shown and forty house plans carefully prepared by competent architects in consultation with home-management specialists and agricultural engineers familiar with farm conditions in all parts of the United States.

In many instances, with some adaptations of course, these plans may well be used for residences outside of farm areas.

The April 1934 issue of THE ARCHITECTURAL RECORD was devoted to farm and village housing; the tables in the article "Survey of Farm Conditions" were prepared from county reports also of the Farm Housing Survey.



Photographs by N. N. Woodworth

BEFORE AND AFTER VIEWS OF REMODELED SCHOOL IN SIOUX CITY, IOWA—BEUTTLER AND ARNOLD, ARCHITECTS

NEXT MONTH

A SCHOOL MODERNIZING PROGRAM FOR SIOUX CITY, IOWA.

By Beuttler and Arnold, Architects

How thirteen schools of Sioux City were modernized and enlarged with aid of a PWA loan is discussed by the supervising architects. The success of this endeavor is revealed by the history of the project. "School District Bonds to the amount of $390,000 were issued, but inasmuch as other interests were willing to purchase these bonds at a lower interest rate than the 4% offered by the Government, they were sold privately and the application was revised to consist of a request for grant only of approximately 30% of the building cost which was approved by the Administration."

EMERGENCY RELIEF HOUSING OF THE FEDERAL GOVERNMENT.

This article discusses: what has been done in the way of subsistence housing for emergency relief; new and enlarged housing plans under the FERA; changing policy of housing for industry.

ENLARGING ACTIVITIES OF THE ARCHITECT. By John Gloag.

"Bring back to the architect that wide sphere of usefulness held by the architect in the 18th century" is the reasoned plea of John Gloag in the first of two articles prepared by a leading English architectural critic and member of the Design and Industries Association of London.

HOMESTEAD AT REEDSVILLE, WEST VIRGINIA

OTHER FEATURES:

Technical News and Research: New Developments in Structural and Design fields, including insulation, standardization of drafting symbols, etc.

Portfolio of Low-Cost Houses.

Building Trends.

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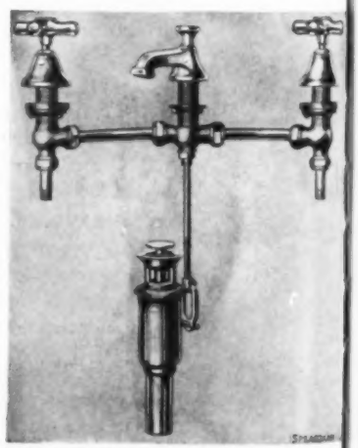

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NEWS OF THE FIELD

The firm of Crowe & Schulte has been dissolved. Edward J. Schulte, architect, announces the establishment of offices in the Paramount Building, 920 East McMillan Street, Cincinnati, Ohio.

Murray Leibowitz, architect, announces the removal of his office from Plainfield, New Jersey, to The Perth Amboy National Bank Building, corner of Smith and State Streets, Perth Amboy, New Jersey.

Archie Protopapas, architect, has moved from 25-90 35th Street, Astoria, Long Island, to 507 Fifth Avenue, New York City.

In connection with the article on Kitchen Planning by Dr. Louise Stanley, which appeared in the October issue of THE ARCHITECTURAL RECORD, credit should have been given to Maud Wilson of the Agricultural Experiment Station, Corvallis, Oregon, for the illustrations on pages 308 and 309.

A. I. A. AWARDS

Certificates of fellowship of the American Institute of Architects were awarded to eight New York architects at the November luncheon meeting of the New York chapter of the Institute.

Ralph Walker, president of the chapter, presented the awards to those chosen by a national jury "for notable contributions to the advancement of the profession in design, construction, literature, education or public service."

Those receiving the fellowship awards were: Walter D. Blair, 154 East Fifty-first Street. Thomas H. Ellett, 101 Park Avenue. Leon N. Gillette, 599 Madison Avenue. Ely Jacques Kahn, 2 Park Avenue. William F. Lamb, 11 East Forty-fourth Street. James Gamble Rogers, 154 East Forty-sixth Street. Clarence S. Stein, 56 West Forty-fifth Street. Henry Wright, 56 West Forty-fifth Street. A similar certificate for the late Raymond M. Hood was received by his widow.

RUSSIAN ARCHITECTS VISIT NEW YORK ARCHITECTS

Details regarding the construction of the Palace of the Soviets in Moscow, which as planned will be the largest public building in the world, both in respect to height and volume, were outlined at a recent reception to the Soviet architects responsible for the project and the engineer in charge of the steel construction, given by the American Russian Institute for Cultural Relations with the Soviet Union in cooperation with the New York Chapter of the American Institute of Architects and the Architectural League of New York at the latter's headquarters. The Soviet commission, consisting of the three authors of the project, Vladimir G. Helfreich, professor of architecture; Boris M. Iofan, chief architect; Vladimir Schuko, member of the Academy of Arts, and engineer Vasily P. Nicolaeff, have been in this country for some time making studies of American architectural and construction methods and city planning, having already made similar studies in London, Paris and Berlin.

CALENDAR OF EXHIBITIONS AND EVENTS

December 3-8	Eleventh National Power Exposition, at Grand Central Palace, New York City.
December 29-31	First National Convention of the Federation of Architects, Engineers, Chemists and Technicians to be held in Chicago.
January 3	Closing date for nominations, Le Brun Scholarship. Address Le Brun Scholarship Committee, Room 732, 522 Fifth Avenue, New York City.
Until January 6	Exhibition of Contemporary American Industrial Arts. Metropolitan Museum of Art, New York City.
Until January 15	Fifth Anniversary Exhibition at Museum of Modern Art, New York City.
January 18	Closing date of ninth annual collaborative competition for architects, landscape architects, painters and sculptors, held by Association of the Alumni of the American Academy in Rome, 101 Park Avenue, New York City.
Until January 26	"Art in America" programs broadcast every Saturday night over Station WJZ and national network.
January 30-March 7	Exhibition of work of George Caleb Bingham, Gaston Lachaise, and Henry Hobson Richardson, at Museum of Modern Art, New York City.
February 1	Closing date for entries in the Annual Competition for Prizes of Rome. Address Roscoe Guernsey, Executive Secretary, American Academy in Rome, 101 Park Avenue, New York City.
March 18-May 14	Exhibition of African Art, Museum of Modern Art, New York City.

FIRST NATIONAL CONVENTION OF THE FEDERATION OF ARCHITECTS, ENGINEERS, CHEMISTS AND TECHNICIANS

To achieve the unity of all technical employees in the fight to raise their living standards and to procure a minimum of security, the Federation of Architects, Engineers, Chemists and Technicians invites all Chapters and Members and all technical employees, organized and unorganized, employed and unemployed, in every phase of technical activity in field, shop, office and laboratory, to its First National Convention to be held in Chicago, Illinois, December 20, 30, 31. Every chapter of the Federation must be represented. All organizations of technical employees are urged to send fraternal delegates, to participate in the discussion towards common interests and to cooperate thereafter in carrying out the ensuing program.

Organizations and individuals can write to the National Headquarters for copies of the Call and Credential Forms for Delegates. Address all communications to the National Secretary, Jules E. Korchien, 119 East 18th Street, New York City.

LE BRUN COMPETITION

Nomination blanks for the Le Brun Scholarship Competition for 1935 have been issued to the 67 Chapters of the American Institute of Architects by William F. Lamb, chairman of the Scholarship Committee. Institute members may nominate any draftsman or architect properly qualified according to the terms of the deed of gift. Particulars may be obtained from the Chapter secretaries. The $1,000 Scholarship is for the purpose of assisting "some meritorious architect or architectural draftsman, resident anywhere in the United States, to aid him in paying the expenses of a European trip, lasting not less than six months."

Nominations to this Competition, which can be made only by Institute members, must be in the hands of the Le Brun Scholarship Committee, Room 732, 522 Fifth Avenue, New York City, before January 3. The program will be issued about January 21 and the drawings delivered about March 25.

ROME PRIZE COMPETITIONS

The American Academy in Rome has announced its annual competitions for fellowships. In architecture the William Rutherford Mead fellowship is to be awarded, in landscape architecture the Kate Lancaster Brewster fellowship, in sculpture the Rinehart fellowship, and in musical composition the Walter Damrosch fellowship.

The competitions are open to unmarried men not over 30 years of age who are citizens of the United States. The stipend of each fellowship is $1,250 a year with an allowance of $300 for transportation to and from Rome. Residence and studio are provided without charge at the Academy, and the total estimated value of each fellowship is about $2,000 a year.

The Academy reserves the right to withhold an award in any subject in which no candidate is considered to have reached the required standard. The term of the fellowship in each subject is two years. Fellows have opportunity for extensive travel and for making contacts with leading European artists and scholars. The Grand Central Art Galleries of New York City will present free membership in the Galleries to the painter and sculptor who win the Rome Prize and fulfill the obligations of the fellowship. Entries for competitions will be received until *February* 1. Circulars of information and application blanks may be obtained by addressing Roscoe Guernsey, Executive Secretary, American Academy in Rome, 101 Park Avenue, New York.

REGIONAL PLANNING COURSES AT CORNELL

The Board of Trustees of Cornell University has authorized the establishment in the near future of a special group of courses on large-scale planning, to be offered to all students of the University. A grant from the Carnegie Corporation of New York will finance the project for a period of three years. The Board also announced the appointment of Gilmore D. Clarke of New York as Professor of Regional Planning. Mr. Clarke is well known as a consultant on many large-scale developments.

While specialized courses have been established at other institutions, notably at Harvard and Massachusetts Institute of Technology, primarily for the training of city planners, the offering at Cornell will be in the nature of an experiment along new lines. The attempt will be made to develop an understanding of this subject among students whose main interest lies outside the technical planning field. This idea is based on the belief that actual accomplishment in large-scale planning must rest on the cooperation of many diversely trained individuals united through an informed interest.

Photograph by Wyatt Davis

Circular dining alcove in country house, designed by Walter Dorwin Teague, and shown in the Metropolitan Museum's exhibition of Contemporary American Industrial Art, New York City. Table entirely of plate glass; room in white and gold; window screened with glass rods; white chairs, upholstered in emerald green leather; rug, in white, "toast" and black; gold-plated lighting fixtures.

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MEASURED DETAILS FROM SAN GIMIGNANO

By IVES VAN DER GRACHT
and ROBERT W. McLAUGHLIN, JR.

Solemn and austere, the Palazzo del Podestá frowns down upon the small Piazza in front of the Collegiata, the Cathedral of San Gimignano. All about rise the massive towers of the fortified residences of the great families of the town, notably the Salvucci and Ardinghelli, whose bloody feuds form one of the most colorful pages in its stormy history, and finally resulted in the voluntary submission of the townspeople to the Florentine Republic in 1353. Probably the most attractive feature is the courtyard, reached by means of a brick-paved, vaulted passageway. A staircase mounts to a flanking loggia, supported on heavy arches, which are generously decorated with frescoes of exquisite color. The well, strong and simple, and framed by the sweep of the arch supporting the stairway, bears the coat-of-arms of Messer Jacopo di Caroccio Alberti, who was Podestá in 1360.

Photograph by Alinari

THE CORTILE OF THE PALAZZO PUBLICO

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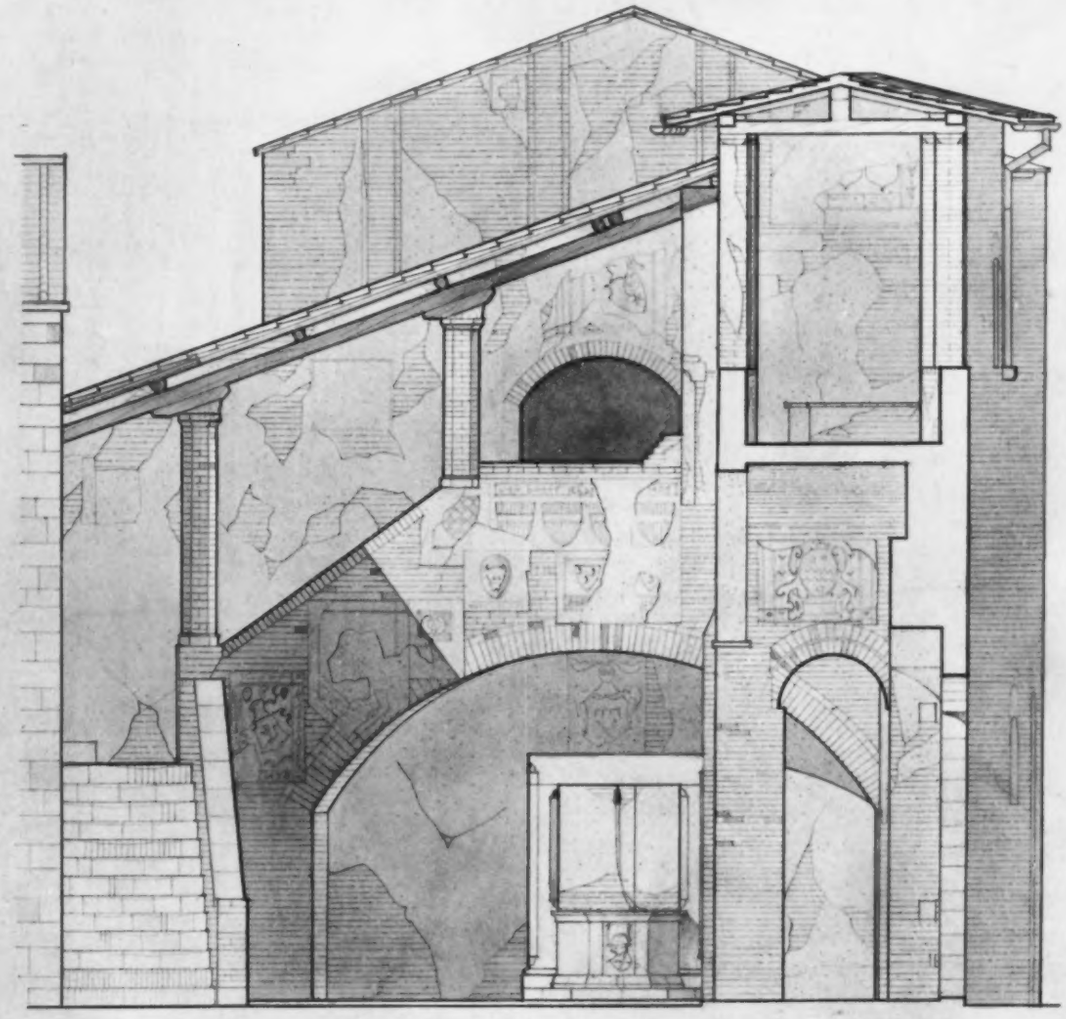
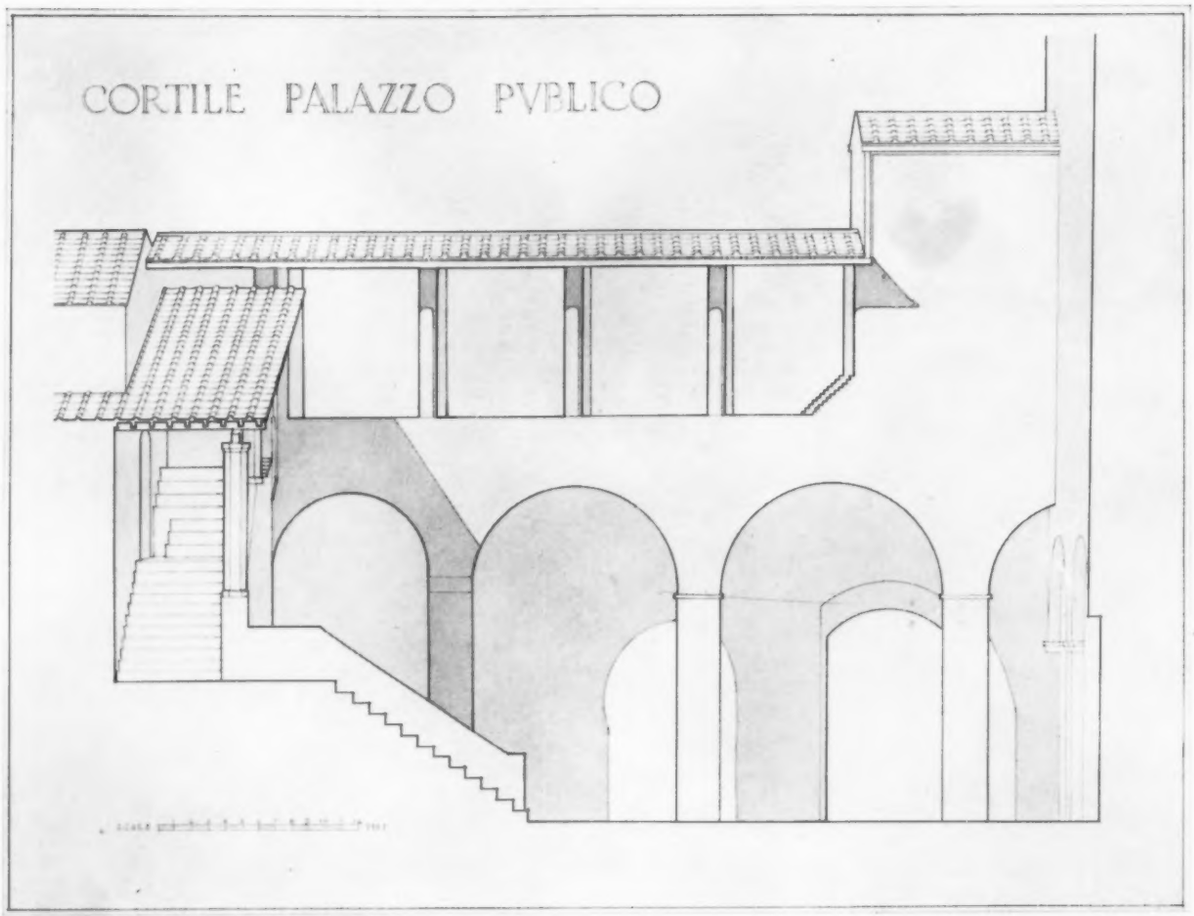
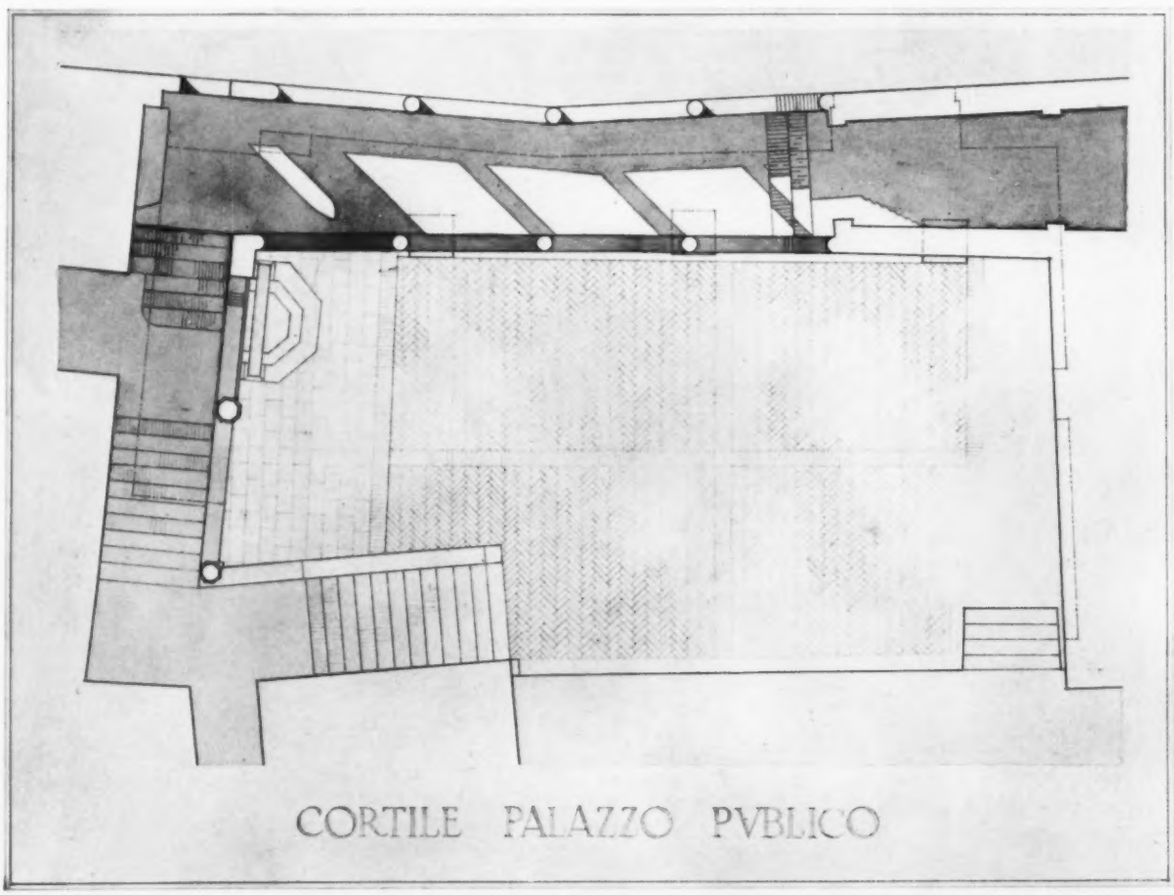


MEASURED DETAILS FROM SAN GIMIGNANO, ITALY





BY IVES VAN DER GRACHT AND ROBERT W. McLAUGHLIN, JR.

Photograph by I. van der Gracht

THE TOWERS OF SAN GIMIGNANO VIEWED FROM THE CORTILE, PALAZZO PUBLICO

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THE ARCHITECTURAL RECORD

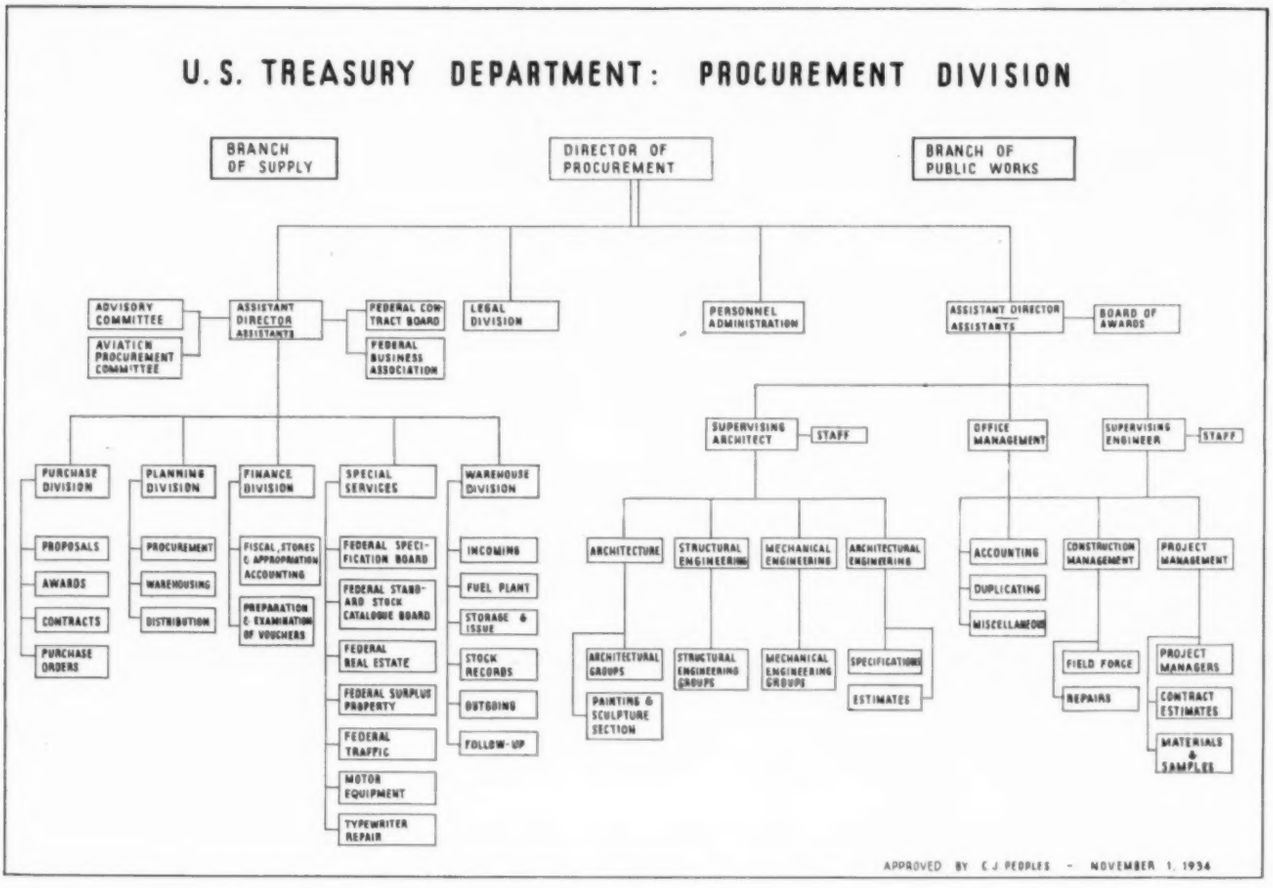
On November 12, in Washington, a farewell dinner was given by friends and associates to James A. Wetmore, acting supervising architect of the Treasury Department who now retires to private life. For 15 years Mr. Wetmore has been head of the Federal architectural program and responsible for the erection of more than a thousand post offices and other public buildings throughout the country.

Within the past year the architectural organization of the Government has been revamped. In the belief that an account of these changes will be of interest to the architectural profession, The Architectural Record has asked the officials of the Procurement Division of the Treasury Department to describe the new set-up. As their report states, "The Procurement Division is now so highly organized that only the addition of personnel would be needed to carry out any large public building program the Government might undertake."

THE GOVERNMENT ENLARGES ITS BUILDING SERVICE

The Procurement Division came into being June 10, 1933, under authority granted in Executive Order No. 6166 and is now law under Act of Congress. The Executive Order charged this newly formed division with the function of determination of policies and methods of procurement, warehousing and distribution of property, facilities, structures, improvements, machinery, equipment, stores and supplies. The General Supply Committee of the Treasury Department was abolished and the office of the Supervising Architect was transferred to the Procurement Division, with the exception that the administration of those buildings containing major Post Office activities was transferred to the Post Office Department, and those buildings containing neither Postal nor Treasury activities were transferred to the Interior Department. This order also transferred the Fuel Yards of the Bureau of Mines, Department of Commerce, to the Procurement Division.

The Procurement Division is divided into two parts, namely, the Branch of Public Works and the Branch of Supply. The approved working organization chart of the Division is shown elsewhere in this article.



The functions of the Public Works Branch are to collect and prepare for submission to Congress all data and estimates for public building projects; to acquire land for public building sites; to prepare plans and specifications, and estimates for public building construction and to take bids and award contracts therefor; to supervise the construction, remodeling, extension, etc., of public buildings; and to repair all public buildings.

In respect to the procurement, warehousing, or distribution for any agency the Procurement Division may, with the approval of the President, (a) undertake the performance of such procurement, warehousing, or distribution itself, or (b) permit such agency to perform such procurement, warehousing, or distribution, or (c) entrust such performance to some other agency, or (d) avail itself in part of any of these recourses, according as it may deem desirable in the interest of economy and efficiency. No centralization of architectural and engineering services for all Government departments has taken place, but with few exceptions, the Procurement Division will either represent other agencies in procurement, warehousing, or distribution in the interests of efficiency and economy or work through them as provided in the Executive Order as above. The Procurement Division is now so highly organized that only the addition of personnel would be needed to carry out any large public building program the Government might undertake.

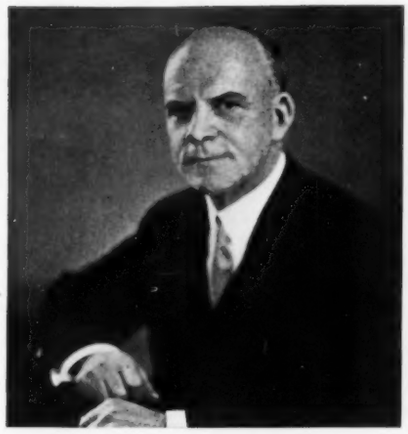
The plan to design standardized buildings under $60,000 value is being followed extensively. Standardized interior designs are creating great savings, while exterior must deviate in some cases because of topography, or for harmony of general planning.

The procurement of public buildings is an essential part of the general activities of the Procurement Division. It now has a procurement program, including the obtaining of sites, for the construction of 822 buildings in as many communities evenly distributed throughout the country, which is being energetically pressed with a view toward relief of unemployment.

The Supply Branch is charged with the purchase, storing, and delivery of material, supplies and equipment for the Federal departments. This branch has under its supervision the Federal Traffic Board, the Federal Real Estate Board, the Federal Specifications Board, the Federal Contract Board, the Federal Catalogue Board, and the Aviation Procurement Committee.

In charge of the Procurement Division is the Procurement Director, Rear Admiral Christian Joy Peoples. Rear Admiral Peoples is also chief of the Navy Bureau of Supplies and Accounts, and Paymaster General of the Navy. He has been with this new government division from its inception.

W. E. Reynolds, assistant director in charge of the Branch of Public Works, has been with the Procurement Division since its formation. Prior to that Mr. Reynolds was Engineer Examiner with the Reconstruction Finance Corporation and later technical assistant to Assistant Secretary of the Treasury, L. W. Robert,



uLeft: LOUIS A. SIMON, Supervising Architect of Public Works Branch. Right: Rear Admiral CHRISTIAN JOY PEOPLES, Director of Procurement Division.

Photographs by Underwood & Underwood

Left: W. E. REYNOLDS, Assistant Director in charge of Public Works Branch. Right: Capt. H. E. COLLINS, Assistant Director in charge of Supply Branch.

Jr., who was then in charge of the Supervising Architect's office in the Treasury Department. He is a graduate of the Iowa State College and a Member of the American Society of Civil Engineers.

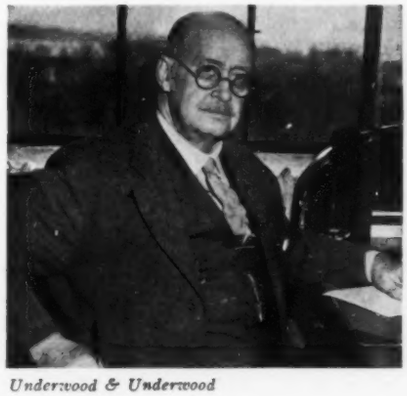
The Assistant Director in charge of the Branch of Supply is Captain H. E. Collins. After twenty-five years with the United States Navy, Captain Collins resigned to enter private industry in executive capacities. His connection with the Procurement Division has been for the last six months. His office really acts as a liaison between all Federal Departments and the NRA and the Petroleum Administration Board concerning alleged violations of codes and any questions to exceptions to codes.

Louis A. Simon, supervising architect of the Public Works Branch, has had nearly forty years of service in Government work. He first started as a draftsman in the Treasury Department and worked his way up to superintendent of the architectural division in the Supervising Architect's office under the old set-up. With the formation of the Procurement Division he was made supervising architect of the Public Works Branch, where all matters pertaining to buildings, up to the letting of contracts, are under his supervision.

G. O. Von Nerta, supervising engineer of the Public Works branch, has had training of many years in private and government work. His office is charged with the superintending of all public building programs after the same have been let to contract.

In charge of the Legal Department of the Procurement Division is William K. Laws. He assumed office three months ago. Formerly Mr. Laws was in private practice in New York City with the law firm of Sullivan and Cromwell. Later he was chief attorney for the New York Guaranteed Mortgage Protective Corporation. He is a graduate of Syracuse University and Columbia Law School.

James A. Wetmore, acting supervising architect under the Treasury Department, last month retired from Government duties after nearly fifty years of continuous service in the Treasury Department, seventeen years of which he served as above. With the organization of the Procurement Division Mr. Wetmore was made chairman of the Board of Awards and served for nine months in this capacity prior to his retirement. He has moved to Coral Gables, Florida, to enjoy private life.



JAMES A. WETMORE, former supervising architect of the Treasury Department, who has retired to private life.

Underwood & Underwood

HOUSING NEWS FROM WASHINGTON

In New York City there are approximately 550,000 *dwellings, and* 15 *per cent of these dwellings are in need of structural repair. Throughout the country,* 16,000,000 *out of* 29,000,000 *buildings need repairs;* 3,000,000 *should be demolished, and if* 13,000,000 *were renovated at* $100 *each the campaign would prompt the spending of* $1,300,000,000, *of which* 75 *per cent would go to labor.*

WARD M. CANADAY,
Director of Public Relations
Federal Housing Administration

BETTER HOUSING CAMPAIGN

Over 70,000 jobs employing almost twice as many men have been created by FHA loans alone, which on November 16 numbered 41,275 and totaled $17,587,850. Counting the amount of cash work and work on other financing terms stimulated by the Better Housing Program, which is about five times as great as that financed under the Modernization Credit Plan, there are probably more than 700,000 men who owe their present employment directly to the Better Housing Program.

More than half the states are progressing faster in the amount of modernization and repair being done than was originally expected. Six states are proceeding fully twice as fast. On November 16 there were 3,904 community campaigns either already organized or in the process of organization. Canvassers in many of these communities have produced more modernization and repair work than can be taken care of by local contractors and dealers.

During the week ending November 23, 316 more lending agencies joined the ranks of those entitled to make loans under the Modernization Credit Plan, bringing the figure up to 11,157; 5,884 new loans were issued, making the total 47,159; and $2,416,695 in modernization credits were issued, making the amount loaned so far $20,004,545.

FHA ARCHITECTURAL SUPERVISORS

After an intensive course in real estate valuating, 58 architects and real estate experts from all over the country have been formally appointed architectural supervisors for the Federal Housing Administration. J. Howard Ardrey, Deputy Administrator in charge of Titles II and III, announced the appointments.

These appointments, made with the approval and on the recommendation of state and regional directors, make possible the completion of organizations for the handling of applications for insurance of mortgages on new homes and the refinancing of old mortgages in the cities to which they are assigned. These cities, together with the appointments, are as follows:

N. Y.: Clarence H. Gardinier, Rensselaer, N. Y.; Buffalo, N. Y.; John J. Wade, Buffalo, N. Y.; New York City: Frederick Mathesius, New York City; Portland, Me.: Philip S. Wadsworth, Portland, Me.; Hartford, Conn.: Philip N. Sunderland, Danbury, Conn.; Boston, Mass.: John T. Whitmore, Boston, Mass.; Providence, R. I.: Albert Harkness, Providence, R. I.; Cleveland, Ohio: George R. Harris, Cleveland, Ohio; Concord, N. H.: Carl E. Peterson, Manchester, N. H.; Newark, N. J.; Neil J. Convery, Newark, N. J.; Philadelphia, Pa.: Charles Lewis Borie, 3d, Philadelphia, Pa.; Pittsburgh, Pa.: Raymond M. Marlier, Pittsburgh, Pa.; Wilmington, Del.: G. M. Whiteside, Wilmington, Del.; Atlanta, Ga.; Hal Fitzgerald Hentz, Atlanta, Ga.; Jacksonville, Fla.: Jefferson D. Powell, Jacksonville, Fla.; Birmingham, Ala.: William T. Warren, Birmingham, Ala.; Columbus, Ohio: Walter E. Pettit, Columbus, Ohio; Parkersburg, W. Va.: H. Rus Warne, Charleston, W. Va.; Detroit, Mich.: Lancelot Sukert, Detroit, Mich.; Richmond, Va.: Merrill C. Lee, Richmond, Va.; Baltimore, Md.: W. Gordon Beecher, Baltimore, Md.; Asheville, N. C.: Louis H. Asbury, Charlotte, N. C.; Charleston, S. C.: Albert Simons, Charleston, S. C.; Des Moines, Iowa: Charles A. Watrous, Des Moines, Iowa; Memphis, Tenn.: Joe T. Wallace, Memphis, Tenn.; Jackson, Miss.: Frank Fort, Meridian, Miss.; New Orleans, La.: Solis Seiferth, New Orleans, La.; Chicago, Ill.: John O. Merrill, Chicago, Ill.; Springfield, Ill.: Ralph W. Varney, Champaign, Ill.; Indianapolis, Ind.: George Caleb Wright, Indianapolis, Ind.; Helena Mont.: Sigvald L. Berg, Helena, Mont.; Mineapolis, Minn.: Edwin H. Hewitt, Minneapolis, Minn.; Milwaukee, Wis.: Roger C. Kirchhoff, Milwaukee, Wis.; Denver, Colo.: George H. Williamson, Denver, Colo.; Louisville, Ky.: Ossian P. Ward, Louisville, Ky.; Kansas City, Mo.: William H. Sayler, Kansas City, Mo.; St. Louis, Mo.: Wilbur T. Trueblood, St. Louis, Mo.; Little Rock, Ark.: George H. Wittenberg, Little Rock, Ark.; Sioux Falls, S. D.: Harold J. Spitznagle, Sioux Falls, S. D.; Bismarck, N. D.: Ira L. Rush, Minot, N. D.; Dallas, Texas: James Bruce Cheek, Dallas, Texas; Houston, Texas: Alfred Finn, Houston, Texas; San Antonio, Texas: Raymond Phelps, San Antonio, Texas; Fort Worth, Texas: Wiley G. Clarkson, Fort Worth, Texas; Topeka, Kan.: Ben H. Byrnes, Salina, Kan.; Omaha, Nebr.: Alan McDonald, Omaha, Nebr.; Cheyenne, Wyo.: W. M. Dubois, Cheyenne, Wyo.; Salt Lake City, Utah: Edward O. Anderson, Salt Lake City, Utah; Reno, Nev.: George Ashmead Ferris, Reno, Nev.; Boise, Idaho: Frederick C. Hummel, Boise, Idaho; Portland, Ore.: William G. Holford, Portland, Ore.; Seattle, Wash.: A. M. Albertson, Seattle, Wash.; Phoenix, Ariz.: Leslie J. Mahoney, Phoenix, Ariz.; Tulsa, Okla.: Arthur M. Atkinson, Tulsa, Okla.; Oklahoma City, Okla.: Thomas L. Sorey, Oklahoma City, Okla.; Santa Fe, N. M.: A. Leicester Hyde, Santa Fe, N. M.; San Francisco, Calif.: Albert J. Evers, San Francisco, Calif.; Los Angeles, Calif.: David J. Witmer, Los Angeles, Calif.

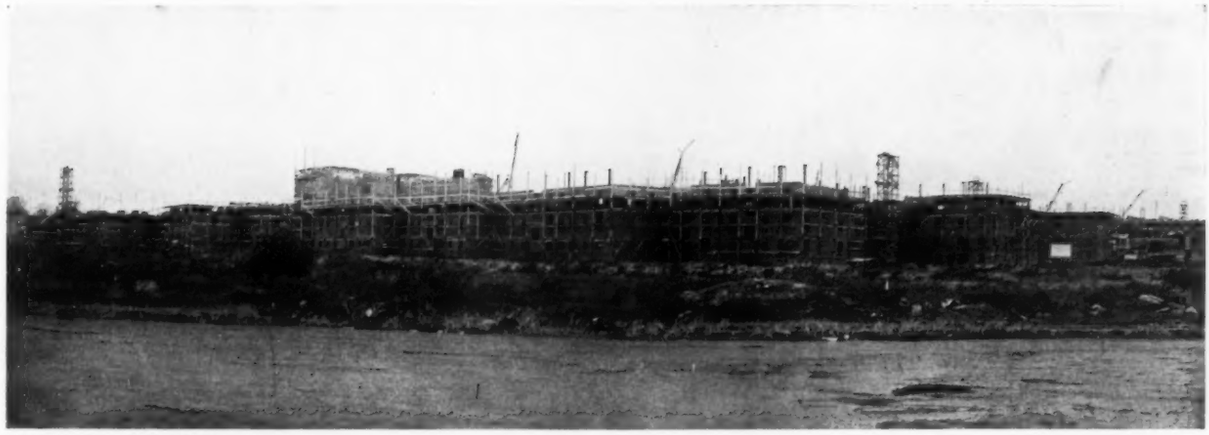
CHICAGO HOUSING PROJECT

Ten Chicago architects and firms have been retained to develop the plans for the Southwest Chicago low-cost housing and slum-clearance project. The architectural work in connection with the project has been delegated to a major group, which will in turn collaborate with an associate group. Members of the major group are: Mundie and Jensen; Armstrong, Furst and Tilton; John Holabird; Ernest A. Grunsfeld, Jr., and Philip Maher. Associated with this group will be the following architects: Ralph Huszagh, Chester Walcott, Fred Hodgdon, John Merrill, and Melville Chatten.

The two groups will have charge of the plans only for the Southwest project in Chicago. In order to spread the architectural work to as many persons as is consistent with sound procedure, another group of 10 firms and individuals will be selected to handle the South Side project, the second announced on the $25,000,000 Chicago program. The same procedure will be followed with other Chicago projects.

At the time of their selection, the architects for the Southwest project were asked to name from themselves one person to act as chairman to coordinate the work. By unanimous vote, John Holabird was elected to act as director.

The Southwest Chicago project, to cost approximately $12,500,000, is the largest single project in PWA's national $150,000,000 slum-clearance and low-cost housing program. Taking up 37 square blocks, it will provide metropolitan housing for some 3,000 families at moderate rents. The new buildings will consist of 2, 3 and 4-story apartments and row houses.



Photograph by Ewing Galloway

The Hillside Housing Corporation's development near Boston Post Road in The Bronx, New York, as it looks today, one year after work was started.

PROGRESS REPORT ON LOW-COST HOUSING AND SLUM CLEARANCE

By NORBERT BROWN

Two instruments have been used by the Federal Government to advance a low-cost housing and slum clearance movement: (1) the Emergency Relief and Construction Act of 1932, which has been superseded by (2) the National Industrial Recovery Act of 1933.

Both acts provided for loans to limited-dividend corporations, and the latter enlarged the government's power by making possible outright grants to public bodies of 30 per cent of the cost of labor and materials employed in housing and slum clearance.

The National Industrial Recovery Act further allowed the Federal Government itself to engage directly in housing and slum clearance through the Public Works Emergency Housing Corporation which was incorporated on October 28, 1933.

Under the Emergency Relief and Construction Act and the National Industrial Recovery Act, eight projects have been started by limited-dividend corporations and are in varying stages of completion. These projects vary in size from the large Knickerbocker Village development in New York, consisting of two 12-story buildings on a two-square-block tract, to small, single-family houses erected at Alta Vista, Virginia. The total amount loaned to limited-dividend corporations is $19,546,600.

The completion of these eight projects promoted by limited-dividend corporations and financed in part by the Reconstruction Finance Corporation and Public Works Administration will mark the close of the first phase of the Federal Government's housing and slum-clearance program.

The failure of this program, due principally to an inability to reconcile unsubsidized construction with low rentals, has prompted the Public Works Administration to embark on the second phase of its program through its own real estate and construction company, the Public Works Emergency Housing Corporation.

The Emergency Housing Corporation enjoys definite advantages over limited-dividend companies, at least one of which will tend to enable the establishment of lower rentals than the limited-dividend companies could offer.

The most important advantage is that the Public Works Emergency Housing Corporation is able to receive a grant on its projects covering 30 per cent of the cost of labor and materials employed in housing and slum clearance. This advantage, of course, did not accrue to limited-dividend corporations.

In New York State and in other states where the New York State Housing Law was used as a model for housing legislation, the limited-dividend corporations theoretically enjoy the States' power of condemnation just as the Public Works Emergency Housing Corporation through the Federal Government enjoys the power of eminent domain.

This instrument of condemnation has never been used by the State Housing Board in New York largely because the Board itself is not certain of its constitutionality and also because of the considerable delays involved in court proceedings.

The Public Works Emergency Housing Corporation has undertaken to devise a condemnation procedure by which land may be acquired without undue delay at fair market valuations and to support the constitutionality of the procedure in the courts. It is now exercising the powers of condemnation in several cities, but as yet the question of the constitutionality of the power as at present exercised has not come up for judicial review. In Cleveland where the first condemnation suits have been started, the Court permitted the suits to proceed without formally passing on the question of constitutionality.

The demarcation between the first and second phases of the Government's housing and slum-clearance program was made at the time Federal support to limited-dividend corporations was withdrawn.

The experience of the Housing Division of the Public Works Administration in its consideration of 533 applications for limited-dividend projects indicated the impossibility of reconciling low rents with privately promoted projects. Eighteen of the applications proceeded to a point where actual allotments were made, but in all but seven of these cases, the allotments were withdrawn. In one of the seven latter cases, the Public Works Administration demanded a 35 per cent write-down in the land valuation even after work on the project was definitely under way and the original valuation had been approved.

With the reallocation of $88,528,400 originally earmarked for Government loans to limited-dividend companies by the Public Works Administration, together with the original $50,000,000 allocated to the Public Works Emergency Housing Corporation, the Emergency Housing Corporation now can draw on $138,528,400 for housing and slum clearance.

The use of $73,000,000 of this fund has been tentatively set aside for projects in New York, Chicago, Atlanta, Cleveland, Indianapolis, Detroit and Montgomery. This estimated expenditure would go to nine projects in the cities named, while the remainder could be used on thirty other projects which are under consideration by the Public Works Emergency Housing Corporation.

Of the nine projects, two have proceeded beyond the land assembly stage. Both of these are in Atlanta. The two projects in Atlanta were originally promoted by limited-dividend companies but these companies declined to go through with the government loan contract and the work from this point on was resumed by the Public Works Emergency Housing Corporation. Title has been acquired for both Atlanta sites, and demolition of existing buildings has been started.

Title has also been acquired for the Cedar-Central project in Cleveland and demolition bids have been taken. Condemnation has been started in Chicago and Cincinnati for projects there. In the other cities options are being taken or exercised.

As no complete statement has been made public concerning any of these nine projects, it is impossible to know whether the Emergency Housing Corporation has actually worked out a successful formula for slum clearance and low-rent housing. However, it is encouraging to find that the Corporation is taking the initiative in establishing the legal principles involved and that it is dealing with municipalities. The responsibility for housing conditions in a municipality rests with the municipality itself, although it must look to the state for enabling legislation.

BASIC DATA CONCERNING LIMITED-DIVIDEND HOUSING PROJECTS

Place	Promoter	Loan	Estimated Cost	Number of Units	Type of Buildings	Percentage of Completion
The Bronx, N. Y.	Hillside Housing Corp.	$5,060,000	$5,717,871	1,388	Fireproof Apartments	15
Woodside (Queens), N. Y.	Boulevard Garden Housing Corporation	3,450,000	4,086,600	957	Fireproof Apartments	20
Philadelphia, Pa.	Juniata Park Housing Corp.	1,039,000	1,153,607	284	Fireproof Apartments	50
St. Louis, Mo.	Neighborhood Gardens Corp.	640,000	730,000	252	Fireproof Apartments	4
Alta Vista, Va.	Alta Vista Housing Corp.	84,000	100,000	50	Frame Houses	90
Euclid Village, Ohio	Euclid Housing Corp.	1,000,000	1,250,000	300	Semi-Fireproof Houses	4
Raleigh, N. C.	Boylan Realty Co.	198,600	233,600	54	Non-Fireproof Houses	0
New York, N. Y.	Fred F. French Operators, Inc.	*8,075,000	9,500,000	1,592	Fireproof Apartments	85

*Reconstruction Finance Corporation.

BASIC DATA CONCERNING PUBLIC WORKS EMERGENCY HOUSING CORPORATION PROJECTS

Place	Tentative Allotment	Number of Units	Type of Buildings	Progress
New York, N. Y.	$25,000,000	5,000	Fireproof Apartments	Options Being Exercised
Chicago, Ill.	25,000,000	3,000	Houses and Apartments	Condemnation Proceedings
Atlanta, Ga.	2,700,000[1]	603	Dormitory and Apartments	Clearing Site
	2,100,000[2]	617	Houses and Apartments	Clearing Site
Cleveland, Ohio	3,000,000	799	Apartments	Condemnation Proceedings
Indianapolis, Ind.	3,000,000	1,044	Houses and Apartments	Condemnation Proceedings
Cincinnati, Ohio	6,000,000	1,950	Houses and Apartments	Options Being Started
Detroit, Mich.	6,000,000	....	Houses and Apartments	Options Being Started
Montgomery, Ala.	320,000	160	Row Houses	Condemnation Proceedings

[1]Techwood (White); [2]University (Negro)

Marceau

By GEORGE S. CHAPPELL

With this inquiry on the doings of architects Mr. Chappell begins a series of monthly articles for The Record. Although known in the field of humorous literature as Dr. Traprock, explorer, Mr. Chappell is professionally an architect. Since leaving the Ecole des Beaux-Arts he has been practicing architecture—in partnership with Charles Ewing until 1920 and individually thereafter—filling in the time between jobs with writing. "Most of my architectural work," he states, "has been residential, including college dormitories; Y. M. C. A.'s, and the like. In other words, I am not a skyscraper architect, having always had, in art as in life, a preference for 'the low and rambling'."

"WHAT ARE THE ARCHITECTS DOING?"

A SURVEY OF THE ACTIVITIES OF ERSTWHILE ARCHITECTS

If the lean years through which we are so gallantly struggling—don't cheer, men: the poor lad is cuckoo—have done nothing else they have at least put a blessed quietus on the old remark made by so many multi-chinned matrons and Bright Young Things, to wit, "I have always said that if I were a man I would be an architect." This banality, always productive of an about-to-be-ill feeling in the architectural midriff, is definitely out. Even the dumbest dowager or lightest of lighter-than-air debutantes knows better than to pull the ancient line.

In its place the architect who is fortunate enough to be asked out to an occasional dinner or cocktail party, if you will (loud cries of "We will!"), finds himself confronted, if any one has the bad taste to mention his profession, with the searching question, "What *are* the architects doing?" The query is accompanied by a glance of tender compassion.

This is a refreshing change and yet, faced by this question, I have found myself as unable to answer it as I had been to say anything but "Oh yeah" to the earlier ineptitude. "Just what are the architects doing?" I asked myself, aware that I had not seen many of my fellow craftsmen for months. They seemed to have disappeared into a sort of fourth dimension. Then and there I resolved to look into the matter, to make a sort of survey, this being an excellent time for that sort of thing.

I jotted down a list of five or six of the missing whom I assumed to be definitely among the unemployed, exempting, naturally, the fortunate few who have been steadily occupied by some princely enterprise like Rockefeller Center, the mere thought of whom made me feel liverish. No, I said, my quarry is the architect of my own ilk, who used to have a small but steady practice which has dried up. Five or six investigations, I thought, would be enough to give me an idea which way, if any, architecture was going. Noting my friends' addresses I sallied forth.

Right there I struck my first snag. Two days of door-to-door canvassing convinced me that the run-of-the-mill architectural office had, temporarily at least, gone out of existence. At my friend Andrews' address a sleepy blonde made an obvious effort to remember her employer. "Mr. Andrews," she said thoughtfully, "oh, yes . . . he comes in sometimes, on Wednesday I think it is, to look over his circulars. Mr. Badger comes in on Thursday . . . or is that Mr. Callahan's day? I get them all mixed up. A whole bunch of them use the same address and telephone number but they're very irregular. I don't think I've seen Mr. Andrews in a coupla weeks."

My next stop was at Tom Fletcher's office where a card on the locked door read, "Out to lunch. Back next month." I decided not to wait.

Horace Horton's establishment was a little more productive. A solitary draftsman, who looked vaguely familiar, brightened at my entrance and greeted me by name. "No, Mr. Chappell," he said, "Mr. Horton is in the country. He won't be in this week, I imagine. He has a water-color class or something that keeps him out of town a lot. No, we're not very busy. For the

last three months I've been making perspectives of all his old work but I'm just about down to the last vanishing-point."

Something ominously suggestive in his last remark made me stare at him fixedly, half expecting to see him and his surroundings fade into nothingness before my eyes. Noting this, he said, "You don't remember me, do you, Mr. Chappell? My name is Cooney . . . I worked for you for five years."

"Of course, of course," I lied enthusiastically, suffused by that guiltiest feeling, after which I kicked myself down the hall. I have written no less than ten letters for Cooney but I can never remember him. It's terrible but that's the way I am.

After that I decided not to try to find any of my victims but just to roam around and see what happened. Immediately things improved. One by one I met them, on the street, in the Architectural League, at the Grand Central bar and elsewhere. Their stories were interesting, uniformly cheerful and linked by a certain common philosophy.

I caught Andrews as he was coming out of the Ritz. We were in adjoining compartments of the revolving door and I made a complete circuit in order to grab him by the coat-tails. "Come in here," he said, moving toward the men's bar. "I drop in here about once a week . . . can't afford it oftener . . . but it's quiet and I like to feel civilized and a little extravagant once in a while. What am I doing?" He grinned. "Boy, I'm on the air . . . sure, radio. Listen. Three weeks ago a lady decorator friend called me up and asked me if I would be the other end of a dialogue she'd cooked up. 'Look at Emily Post,' she said, 'and what she's done with Etiquette, telling young men which elbow to hold when they steer a dame across the street, and what fork for which food, and all that. She gets away with it, doesn't she?' 'Sure,' I said. Then she went on to explain. She and I would frame up a lot of thoughts about The Home, see? . . . how to furnish the different rooms and so on, she supplying the information and me putting in the wise-cracks. It's a bunch of hooey but, by gum, I believe she's sold the idea! Why, the outlet for furniture, rugs, hangings and all the gadgets that go into a house is simply enormous. As she says, it isn't so much what you say as how you say it. The dear old public loves to be told things and if you tell 'em their taste is terrible they eat it up. Take my tip, boy; if you haven't anything to do, hook up with some energetic mommer and let nature take its course. They'll accomplish something while you and I sit around and think about it!"

"I believe you're right, Andrews," I said. "You are on the highroad to success." And I meant it.

A little later I met Horton, who had blossomed so miraculously into a water-color artist.

"Its the nerts," he enthused. "I've had a class of ten pupils twice a week all summer. They range from infants to grandmothers and they've certainly kept me out in the open air. Of course they make some awful messes. My job is to rush from one puddle to another and do rescue work."

"Do you think they have learned anything?" I asked dubiously.

"I'm not sure," Horton answered, "but I have. The point is they think I'm a wizard because I can put in a tree without having it blot out the whole sky."

"God alone can make a tree," I murmured.

"I know that," Horton admitted, "but they think I can, too, and I know just enough more than they do to get away with it."

"Horton," I said, "you have put your finger on a great principle."

I found that my next witness, Lawton, was doing nicely with a series of lectures on modern art, addressing women's clubs, Junior Leaguers and similar organizations.

"Where, for the love of Mike, did you learn anything about modern art?" I asked him.

"Out of a book," he said, "out of many books. Listen to this." Rolling back his eyes he recited rapidly. "'Impressionism is a science in that it uses a specialized, selective instrument, the retina, to abstract or extract all of the visual evidence which a particular object contains.' Does that mean anything to you? No, . . but it goes over big. Man, I've got barrels of stuff like that. It's made by the mile and I sell it by the foot, and old ladies come up to me after the lecture and tell me they think they know what I was talking about."

Another of my friends, Patton, I found had taken a more obvious tack for his extra-curriculum endeavor. "I'm doing articles for the popular home magazines," he explained with a hint of apology. "It's funny about them. The subjects can't be too banal. What I mean is they *must* be, the banaler the better. The same old things have to be said over and over again. Actually" . . . he blushed deeply . . . "I had a piece in the last number of *The Householder* called 'Colonial Doorways in Old New England.' You might be interested to know that the same title has been used exactly twelve hundred and sixty-three times."

"I can well believe it," I said. "I've used it two hundred and twenty times myself."

Frank Randall was the only one whom I actually found in his office and we both showed our embarrassment.

"Fancy meeting you here," I said.

"I know," he said confusedly. "It's a small world, isn't it? It wouldn't have happened except that one of my friends has actually given me something to do."

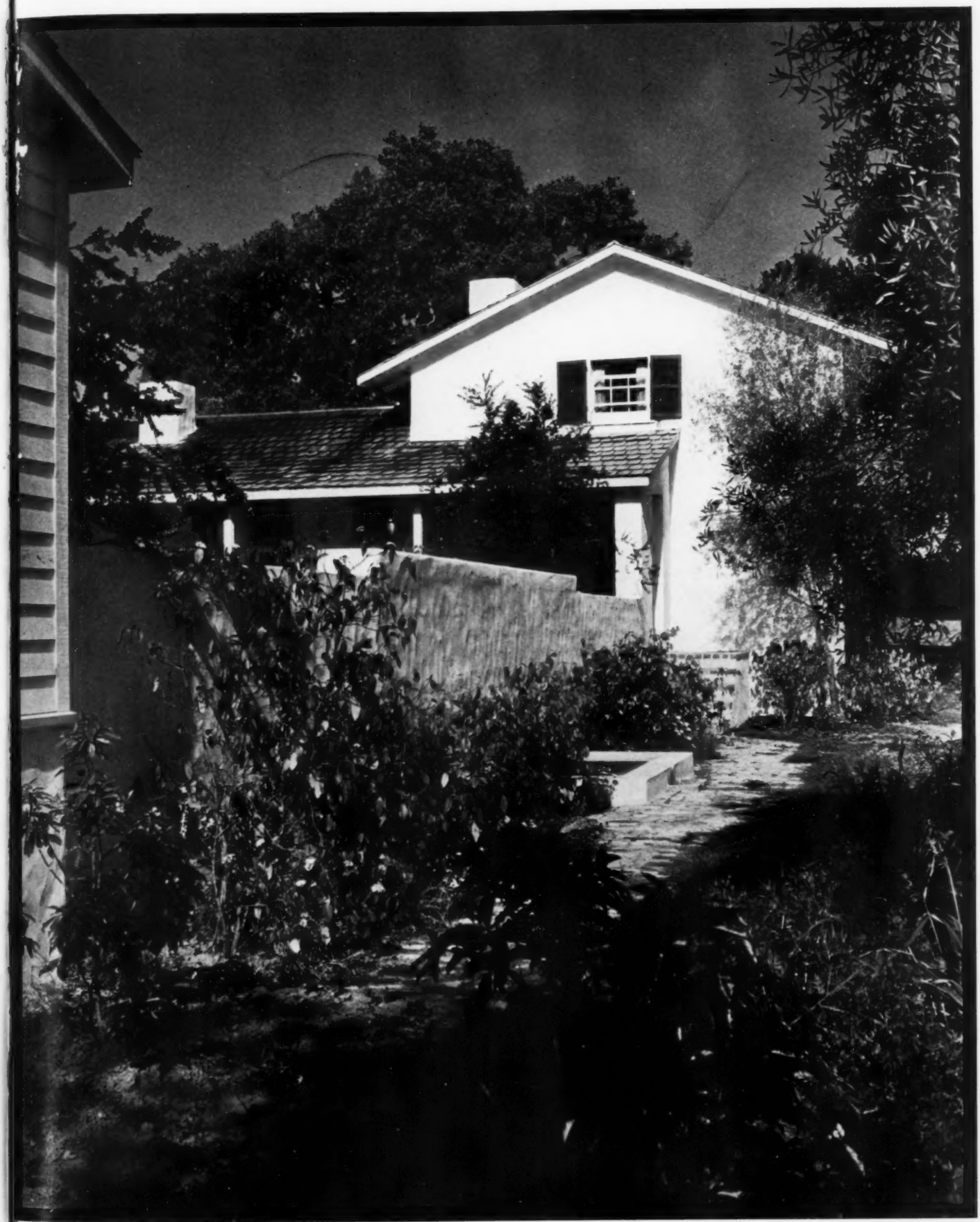
"Not new work," I exclaimed. "Not really?"

"Definitely so," he said, "and definitely new, at least new to me. You see, this friend is an ardent angler and the walls of his house are lavishly decorated with dead fish, all sizes and kinds. The spots and stripes have faded with the years and he wants me to do a bit of restoration work. Don't you think ordinary aluminum radiator paint would do for a tarpon?"

"Anything, in my estimation, would do for a tarpon," I said, but my friend's face was shining with an enthusiasm which I had not seen for a long, long time.

"That's the wonderful thing about architecture!" he said. "Every job is so different."

Good old Randall, I thought, as I left him. Somehow I loved him for sticking to his last.



Photograph by Roger Sturtevant

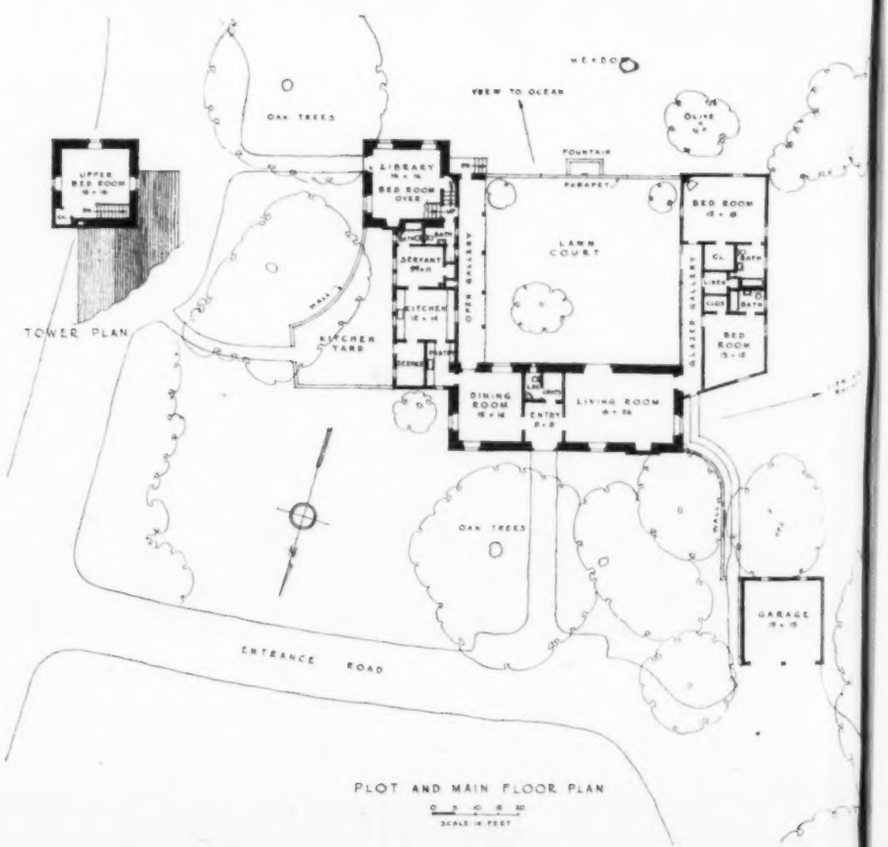
HOUSE OF E. E. KAPLANSKY, SANTA CRUZ, CALIF.
WILLIAM WILSON WURSTER, ARCHITECT

Photograph by Roger Sturtevant

HOUSE OF MR. AND MRS. EARL ELLICOT KAPLANSKY

PASATIEMPO COUNTRY CLUB & ESTATES, NEAR SANTA CRUZ CALIFORNIA

WILLIAM WILSON WURSTER
ARCHITECT



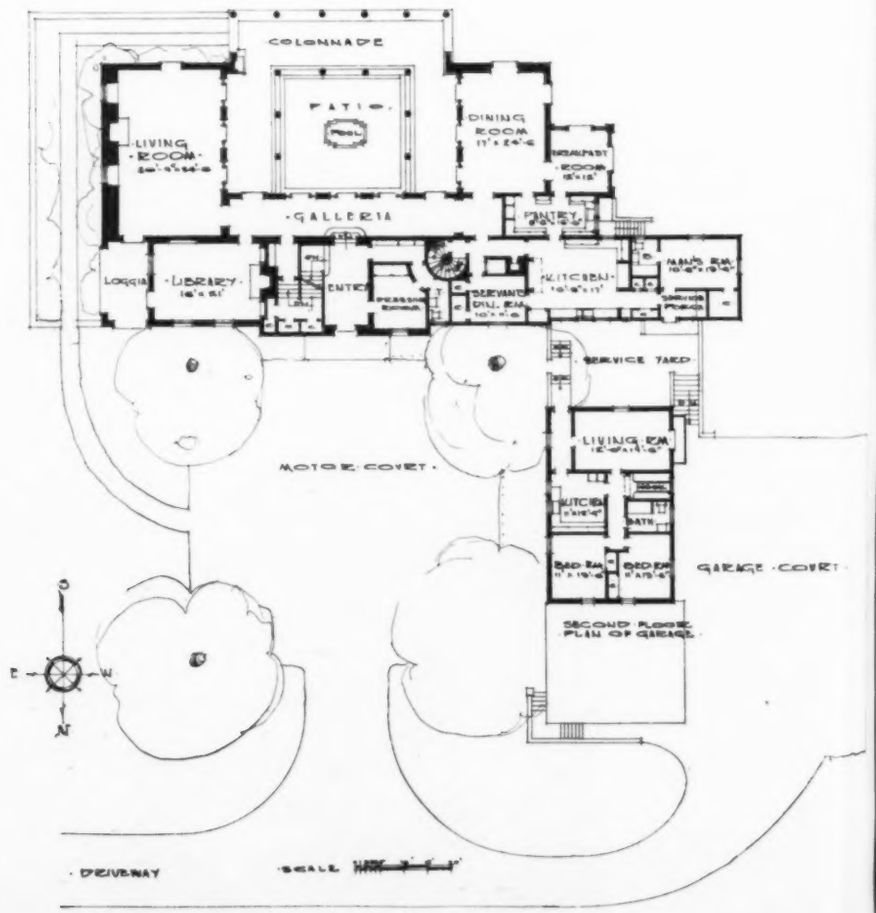
PLOT AND MAIN FLOOR PLAN

To the south the view is over meadow and fairway to the sea with Monterey Peninsula in the distance. This view together with a wooded ravine on the west and fine oaks to the north made three exposures for the living room desirable. The library and one bedroom are planned so that separate access can be had from the road. The main wing and tower walls are plastered and the side wings are rough siding, whitewashed. The roof is of commercial split redwood shakes (1/4" thick) laid 12" to the weather. The shutters are dark green, the doors and windows white. Interior floors are of waxed brick, the walls plaster with adobe finish, and the ceilings of rough shiplap. Cost: $13,000, or $3.25 a square foot.

Photograph by George D. Haight

HOUSE OF JACOB STERN
HOLMBY HILLS, CALIFORNIA

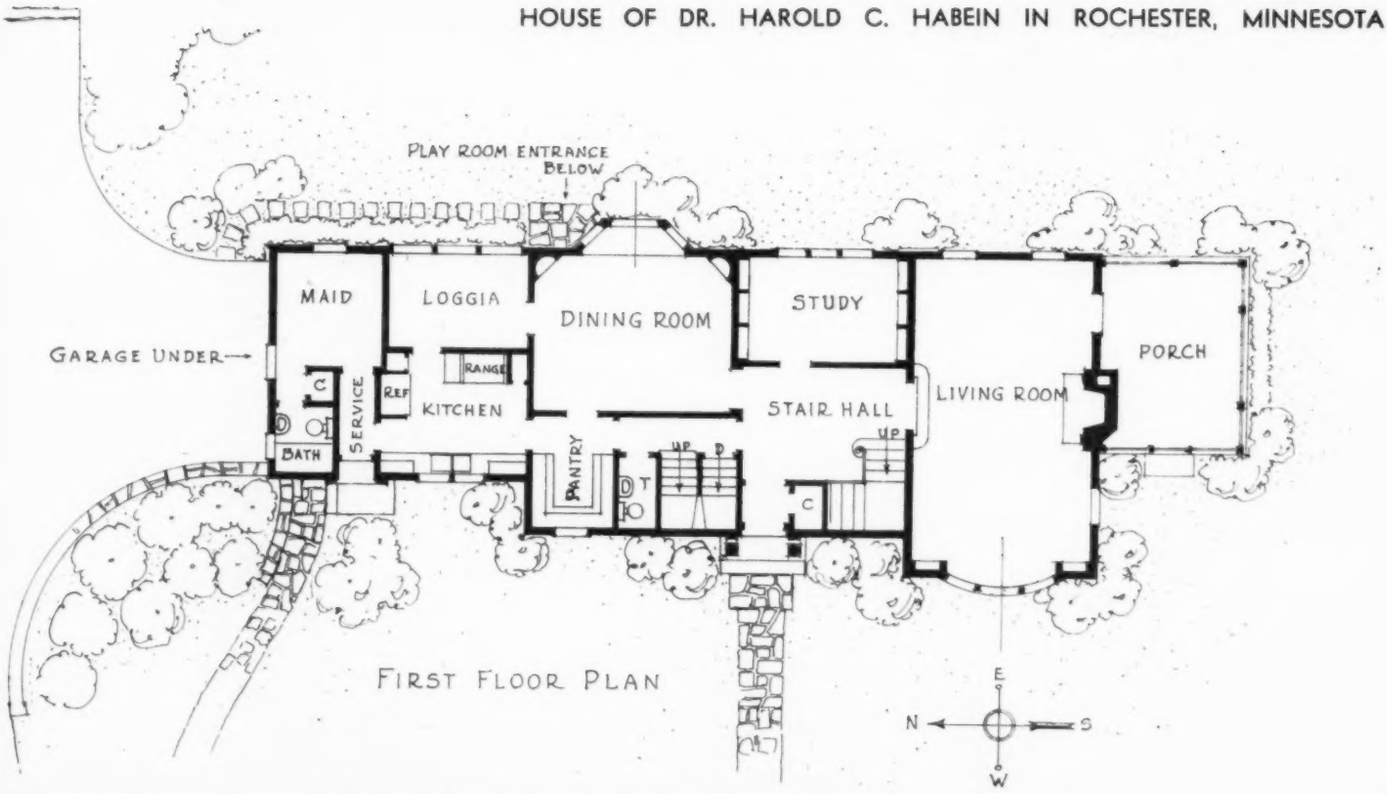
ROLAND E. COATE, ARCHITECT



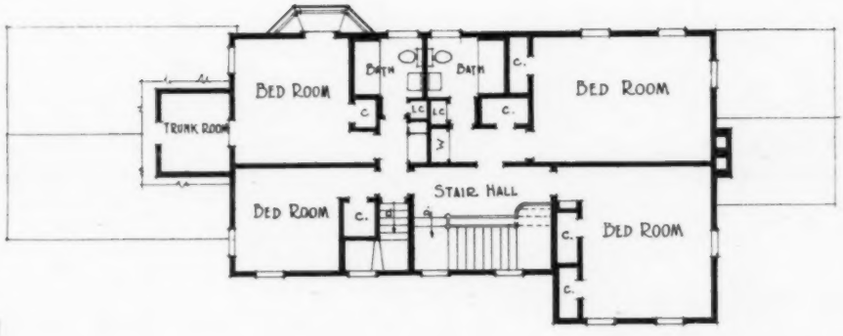
HOUSE OF DR. HAROLD C. HABEIN
ROCHESTER, MINNESOTA
ROLLIN C. CHAPIN, ARCHITECT

Photograph by Henry Elleby

HOUSE OF DR. HAROLD C. HABEIN IN ROCHESTER, MINNESOTA



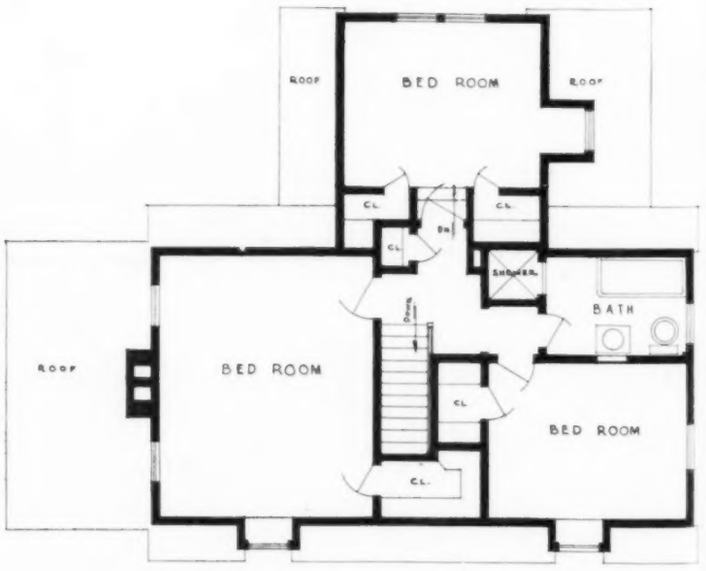
Photograph by Henry Elleby



SECOND FLOOR PLAN

ROLLIN C. CHAPIN
ARCHITECT

Photographs by Gustav Anderson



"THE FAIRFIELD"—CHATHAM MANOR
CHATHAM, NEW JERSEY

RANDOLPH EVANS, ARCHITECT

Construction: Gray shingled walls with white trim and mulberry shutters. Composition roofing. House completed this year at cost of $6,450.

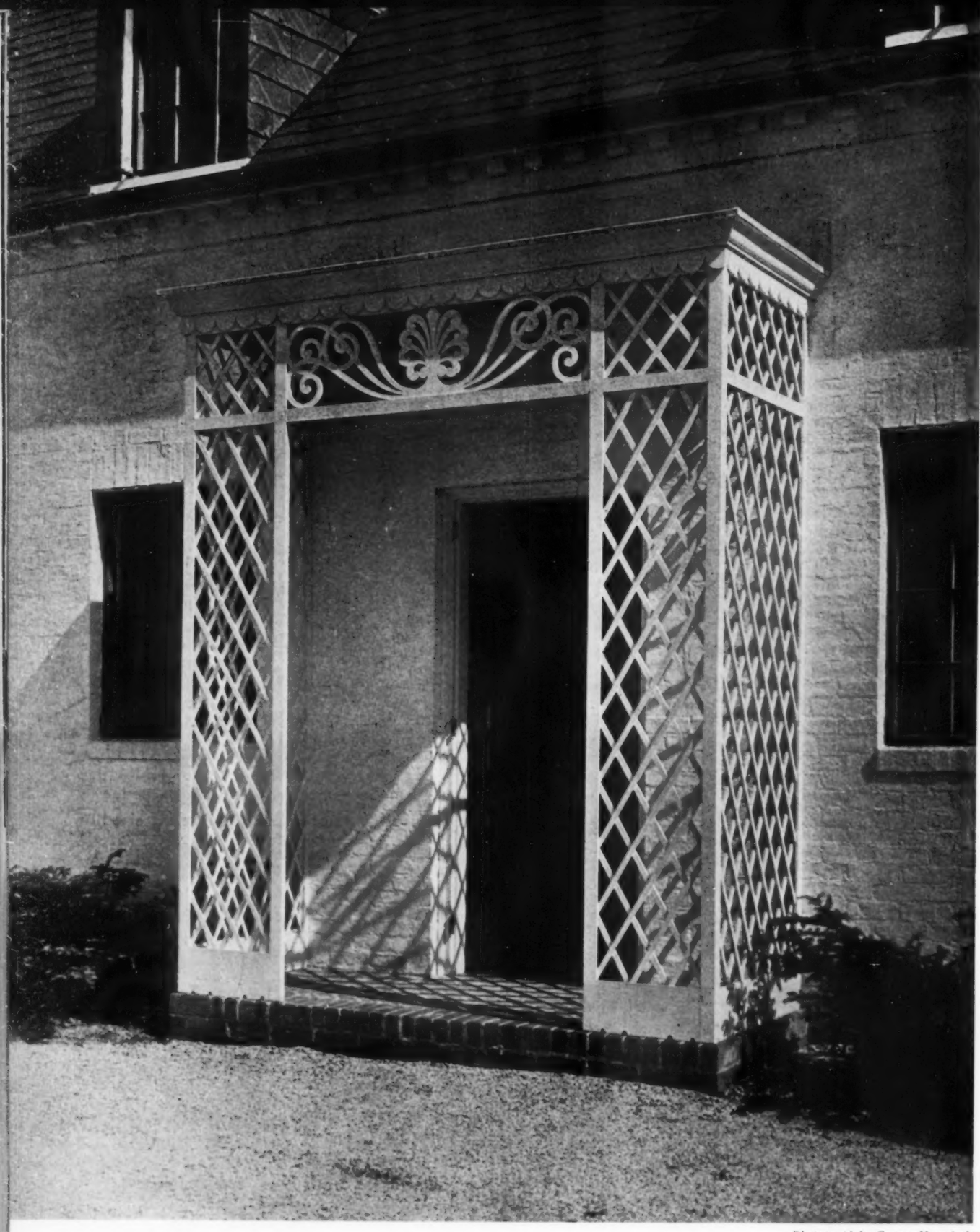
SECOND FLOOR PLAN

FIRST FLOOR PLAN

Construction: Brick and shingled walls painted a light ivory color. Rust colored shutters. Stained cedar shingled roof. House completed this year at cost of $6,200.

HOUSE OF MISS LOUISE MORTON
HARBOUR GREEN, LONG ISLAND

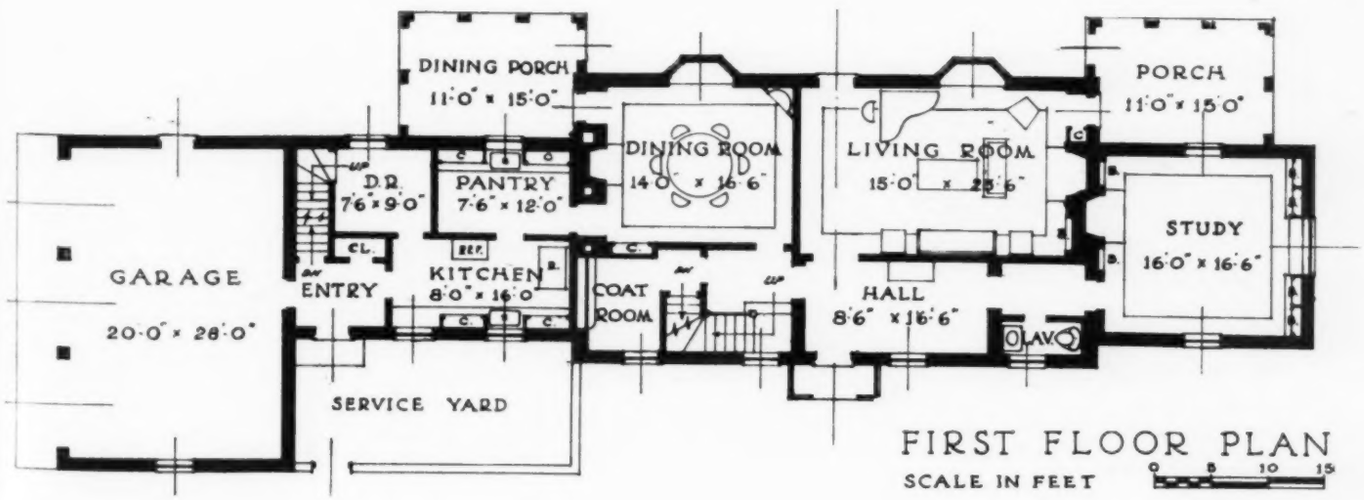
RANDOLPH EVANS, ARCHITECT



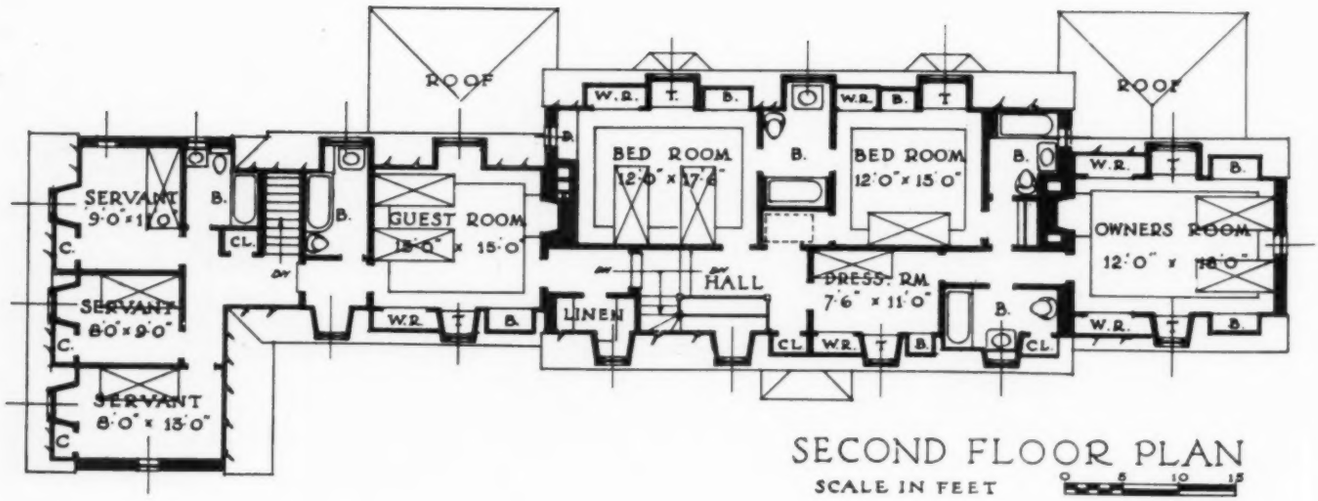
Photograph by George Van Anda

HOUSE OF ALLEN T. KLOTS
LAURELTON, OYSTER BAY, LONG ISLAND

WALDRON FAULKNER, ARCHITECT



Special problems considered in planning this house for owner, wife, and two children: (1) Provision of 4 master bedrooms; (2) arrangement of all master bedrooms so as to provide southern exposure. The front entrance faces north. Construction: Whitewashed brick veneer walls, black slate roof, painted white trim and peacock blue doors and windows. Awarded Second Prize, Class II, 1934 Small House Competition conducted by House Beautiful combined with Home and Field.



HOUSE OF ALLEN T. KLOTS
LAURELTON, OYSTER BAY, LONG ISLAND

Photographs by George Van Anda

WALDRON FAULKNER, ARCHITECT

HOUSE OF OLIVER J. ALBRIGHT
MEMPHIS, TENNESSEE

JONES, FURBRINGER AND JONES, ARCHITECTS

Photograph by George D. Haight

HOUSE OF MRS. J. W. COURTNEY
FLINTRIDGE, CALIFORNIA
DONALD D. McMURRAY, ARCHITECT

Photograph by Sydney W. Newbery

EMPIRE POOL AND SPORTS ARENA IN WEMBLEY, ENGLAND — SIR OWEN WILLIAMS, ENGINEER

EMPIRE POOL AND SPORTS ARENA

at WEMBLEY, ENGLAND . . . SIR OWEN WILLIAMS, DESIGNER and ENGINEER

This building is a covered arena of approximately two acres in extent situated adjacent to the Empire Stadium, Wembley, an open air arena accommodating 100,000 persons, which was built in 1923 for the British Empire Exhibition. The new building is intended to be used for a variety of purposes, principally swimming, ice skating and tournaments. It contains a swimming bath 200 by 60 feet with a capacity of 650,000 gallons and capable of being decked over to take an ice skating rink 200 by 85 feet and also a tournament arena of 300 by 85 feet. It is placed 300 feet back from the public road, the frontage being occupied by car parks and gardens. On each side of the building there is a 40-foot roadway for exits.

The site was originally a lake, the configuration of which was used to accommodate a basement under a part of the building. The whole of the lake was not built on, leaving a portion at the back or east end of the building which is inclosed as a garden to be used for sun bathing and outdoor recreation.

The building itself is 420 by 240 feet wide, including the annexes back and front. The annexes were necessary constructional bases to give stability to the end gable walls, and in them are accommodated at the front the turnstile halls, ceremonial retiring rooms and offices, and at the back the kitchens and staff quarters.

The main hall between the annexes is of uniform cross section for its entire length. Every 44 feet in length of the main hall is a complete entity as far as accommodation of the public is concerned, having within that length the appropriate exits, buffet bars, lavatories, staircases and gangways to meet the requirements of the Licensing Authorities.

The whole building was planned and built to a unit of 2′ 9″, this being the width of the spectators' terraces. This unit and multiples of it are carried throughout for widths of lavatories, dressing boxes, doors, and windows. Vertically the unit of construction is 3′ 0″. A subdivision of these dimensions into 11″ and 6″ respectively gives the limiting tread and rise of stairs allowed by the Licensing Authorities and produces also the pitch of the spectators' terracing.

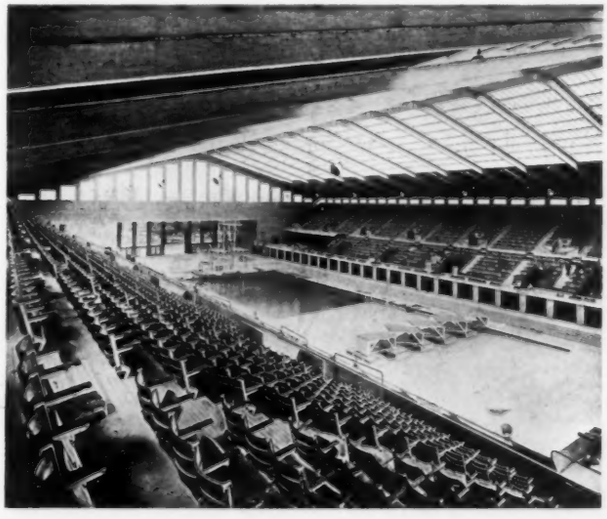
The construction of the building is entirely of reinforced concrete. Floor slabs are of standard 6″ thickness over 22-foot spans without beams, and walls have a standard 9″ thickness. The construction of the main building is a three-hinged arch of 236′ 6″ span; the necessary stiffening of the roof is effected by planes of concrete intersecting at right angles producing fin-like effects on the exterior, the main fins of the roof being 21′ deep and 9″ thick immediately over the side walls.

The galleries, lavatories and buffet bars are all integral parts of the roof. The whole of the roof sits on two parallel "hinges" or "knife edges" each consisting of a 6″ width of concrete carrying a load of 20 tons every foot of length. At the apex of the roof the vertical ribs are cut away leaving only horizontal slabs 6″ thick and 2′ 9″ wide to pass through to form virtual hinges, the horizontal pressure on each being approximately 70 tons. The vertical ribs are at 22-foot centers and for the purpose of stability during striking of centering were constructed in pairs. The roof immediately over the permanent fixed galleries is a solid concrete slab lined with cork but the middle two-thirds of the area is glazed on steel purlins with a center ventilating lantern light with concrete access gangways and in the lantern are accommodated the main electric lights and sound amplifiers.

The ventilation of the building is natural, the height of the building being sufficient by "stack" action to give the necessary changes of air to the spectators. Artificial lighting is of the most efficient direct type throughout. Heating is generally by unit heaters under the main galleries; in summer it is possible to pass refrigerated water through them for cooling the building. The heating of the building and bath warming is by electric thermal storage.

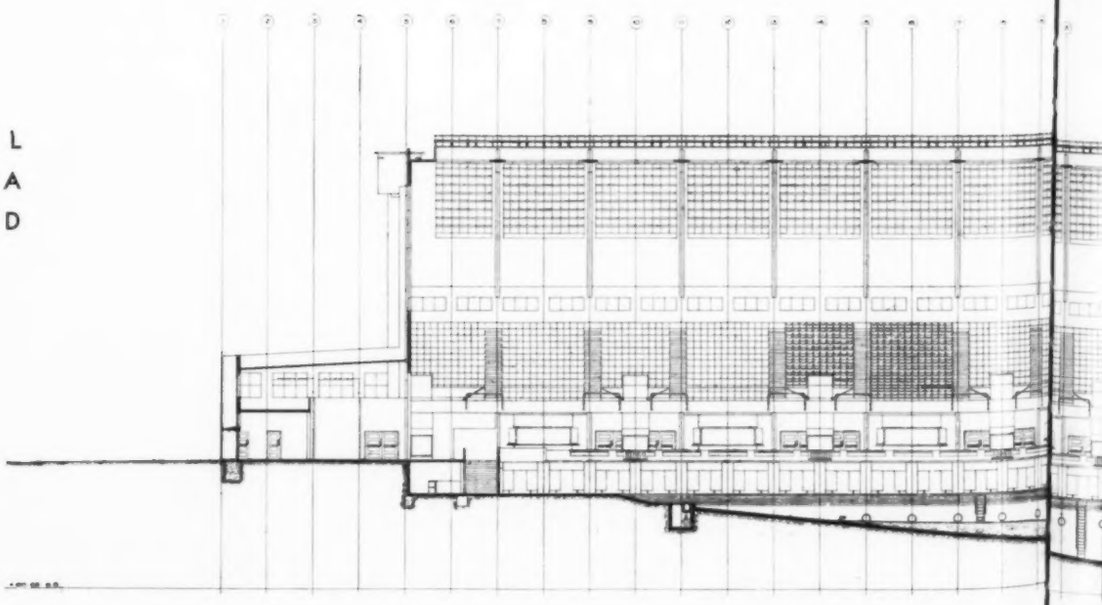
Dressing accommodations are in two colonnades running on each side of the bath. Bathers pass through shower baths and walk on a section of water-submerged floor before going on to the bathers' terrace. Bathers' restaurants are provided, and access directly to the gardens and the lake and sun bathing terraces is through the eastern annex.

The fixed seating capacity is approximately 4,500 and can be increased by temporary seating to the maximum accommodation of 12,500 seats. All seats have been designed specially for the building. The fixed seats cantilever off the riser of the terrace and therefore have no legs standing on the terracing, thus facilitating cleaning of the terracing. The permanent concrete terracing is perforated with slots, the slots being used for attachment of seats and allowing free circulation of air.

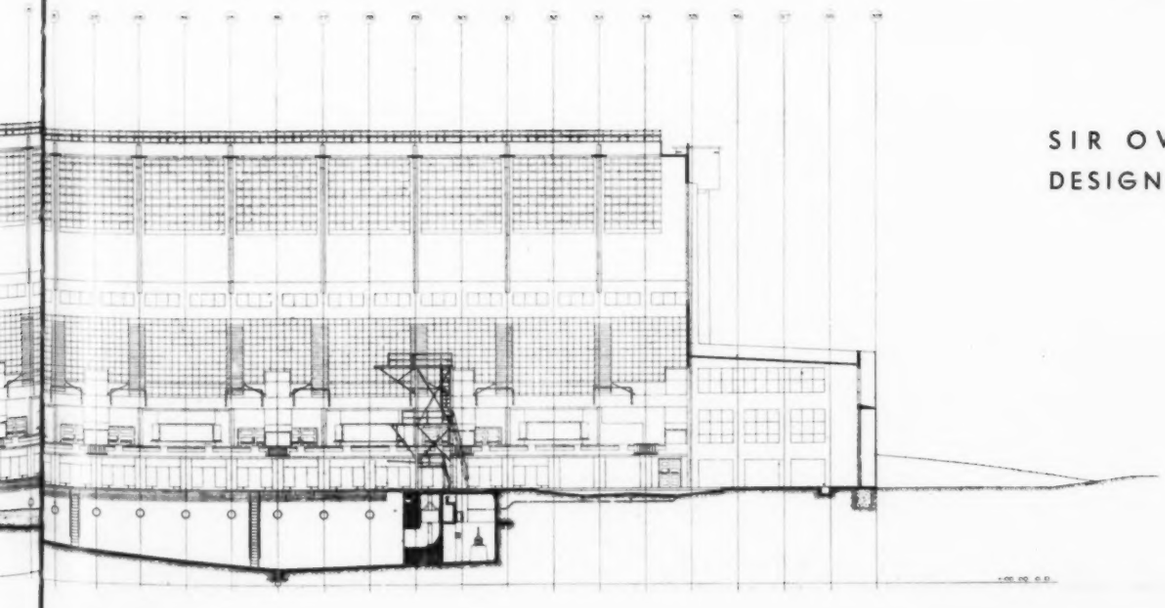


Photograph by Bedford Lemere & Co.

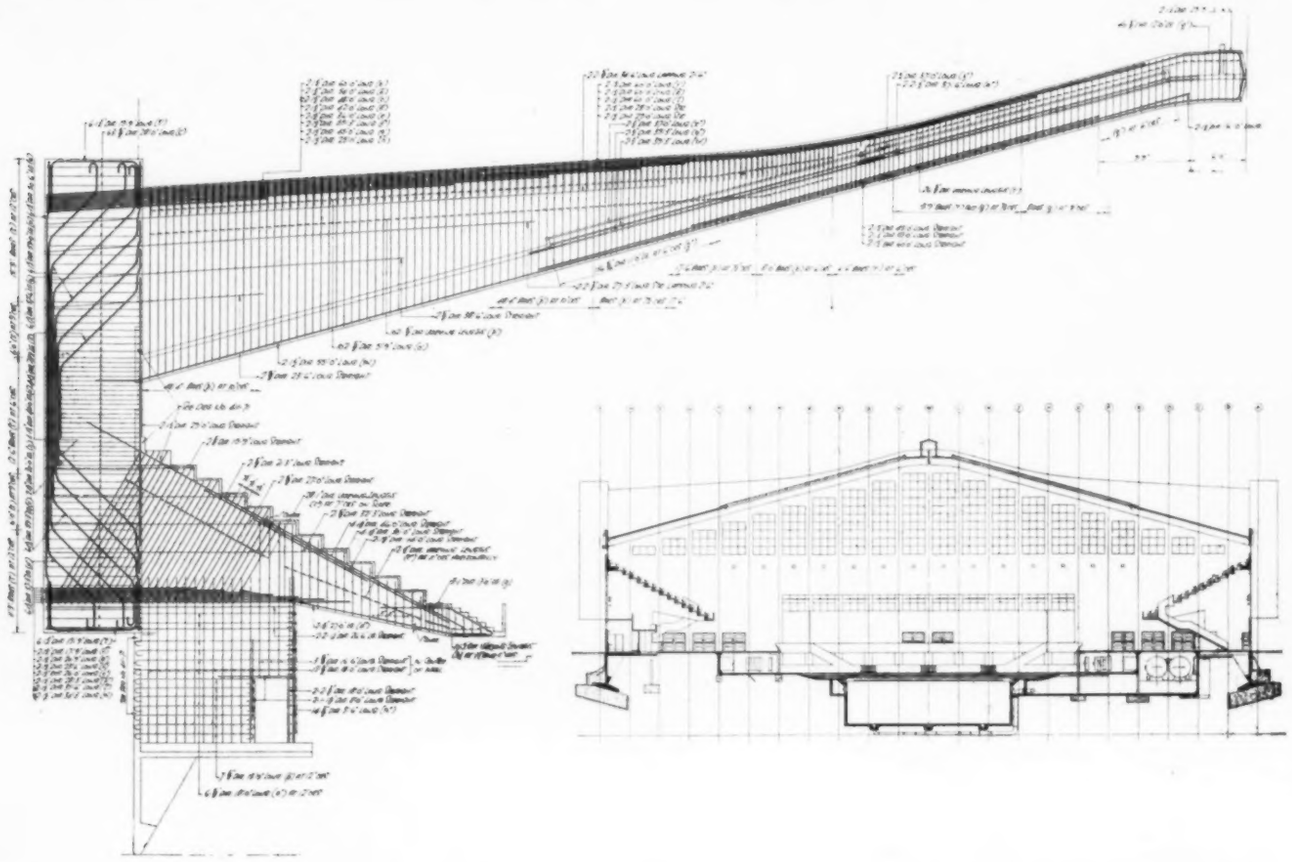
EMPIRE POOL and SPORTS ARENA WEMBLEY, ENGLAND



Photograph by Sydney W. Newbery

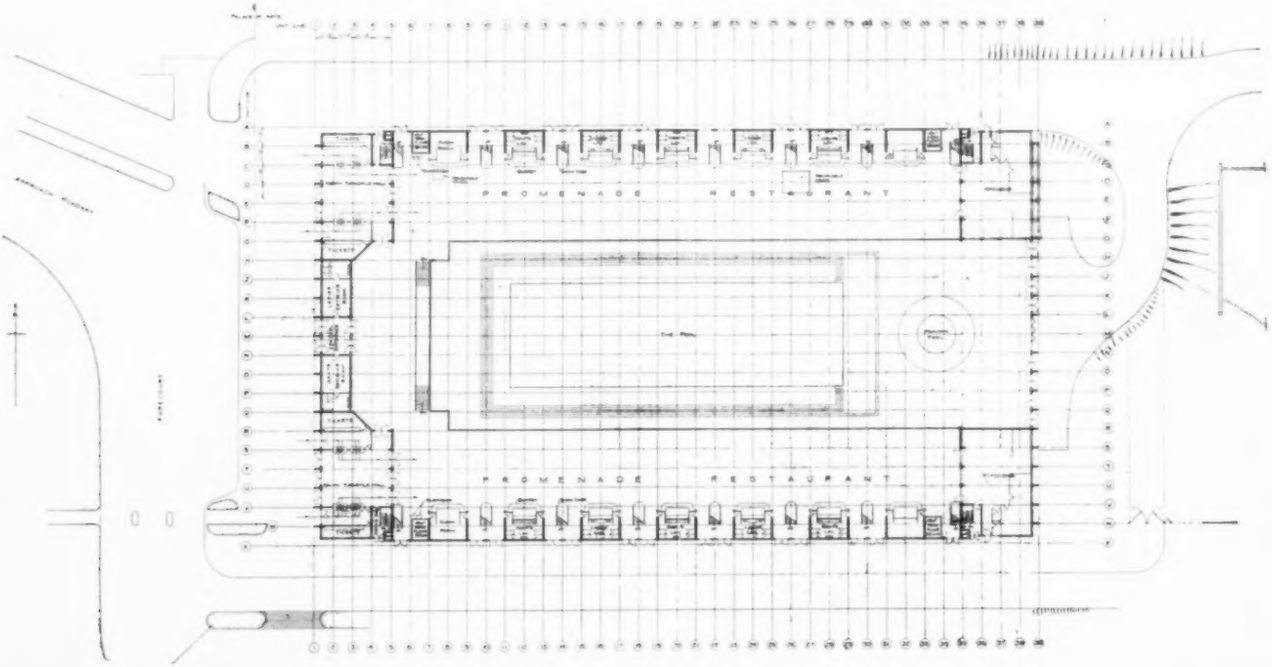


SIR OWEN WILLIAMS
DESIGNER and ENGINEER



EMPIRE POOL and SPORTS ARENA
WEMBLEY, ENGLAND
SIR OWEN WILLIAMS, ENGINEER

The swimming pool is built according to Olympic specification with a maximum water depth of 16 feet. It is surrounded by a subway in which are accommodated lights projecting under water lighting through 20-inch portholes of armor plate glass in the sides of the pool. Behind the deep end of the pool is a chamber accommodating the wave-making machinery, consisting of four hydraulic plungers in reinforced concrete boxes. Scum troughs are provided all around the pool and are unusually wide to break eddies and currents caused by swimming competitors.



INTERIOR OF AQUATIC BIRD HOUSE . . . TROWBRIDGE PHOTOGRAPH

CHICAGO ZOOLOGICAL PARK

BROOKFIELD, ILLINOIS - - - EDWIN H. CLARK, INC., ARCHITECTS

Work was started in the latter part of 1926, and the park was opened to the public on July 1 of this year. Part of the site was donated by Mrs. Edith Rockefeller McCormick and other land acquired through the Cook County Forest Preserve District, comprising a total of 196 acres in Brookfield, 14 miles to the Chicago Loop.

The long narrow flat plot is heavily wooded at one end; the remainder is practically barren. A long axis through center was chosen (see plan, page 422) with a cross-axis connecting the two gates and with a large circular pool motif for the intersection of the two malls on these axes as best circulation and general plan organization. Although one of the principal requirements of this Zoo was a barless naturalistic environment, it was also considered essential to display many and rare varieties for scientific interests. This factor, plus the Chicago winters, necessitated many public exhibition houses. The wooded west end of the site offered poor building sites. An artificial lake was developed here with adjacent picnic grounds and a large future North American scene and bird sanctuary. The fill from this lake was utilized to raise the east end of the long mall. The type of architecture is Italian Peasant with common brick walls painted white, Bedford stone trim, and red tile roofs, and with fireproof construction throughout. Terrazzo floors are well pitched for easy hose cleaning. All buildings are ventilated by a system which keeps air in public space separate from cage ventilation.

The project is approximately two-thirds complete. Future work comprises landscaping, pools, roads, a possible large restaurant, additions to service group, animal hospital, wolf and fox inclosures, a large antelope house, equine house, paddocks for buffalo, yaks, etc., and sea lion pools, a pheasantry, large flying cages and numerous smaller outside flying cages, an ostrich house, monkey island, and many other small inclosures.

BEAR PITS IN CHICAGO ZOOLOGICAL PARK

BEARS: Five outside dens. Concrete moats approximately 12 feet wide. Polar bear inclosure is 100 feet wide and about 35 feet deep with large pool. Rock work constructed of concrete, gun-blown on reinforced metal lath shapes, then troweled and textured. Large pockets left in the rock for planting. All outside dens connected with inside dens by concrete passage and alcoves. One den has a concealed rear moat, so that bears can climb to top of rocks at back and be seen in silhouette against the sky.

FELINAE (lions, tigers, pumas, leopards, etc.): Four large outside barless dens, concrete moats 25 feet wide. Passages from outside dens to inside by door controlled from service space. Large Lion House, 220 feet long, concealed by rock on outside den elevation. Glass skylights over entire inside cages. Art marble floors and walls in cages.

PACHYDERMS (elephants, hippos, rhinos, tapirs, etc.): Monolithic concrete building, 225 feet long. Barless inclosures, inside and outside. Exercise corridor 12 feet wide along entire building. Moats 10 feet wide. Entire building surrounded by naturalistic rock setting, completely concealing it. Large outside pools.

AUSTRALIA (kangaroos, etc.): Building concealed in rock, moated inclosure. Beside smaller cages, there is one large group cage in building with naturalistic background. Interior cages not barless.

Future Monkey Island, Goat Hill and North American Panorama, Foxes and Wolves, Seals, and the like.

HOOFED ANIMAL INCLOSURES (deer and antelope): Moated fronts.

TROWBRIDGE PHOTOGRAPHS

BIRD GROUP: Aquatic Bird House, Parrot House, Insect House, Perching Bird House and Reptile House grouped around a large Duck Pond, viewed from a terrace.

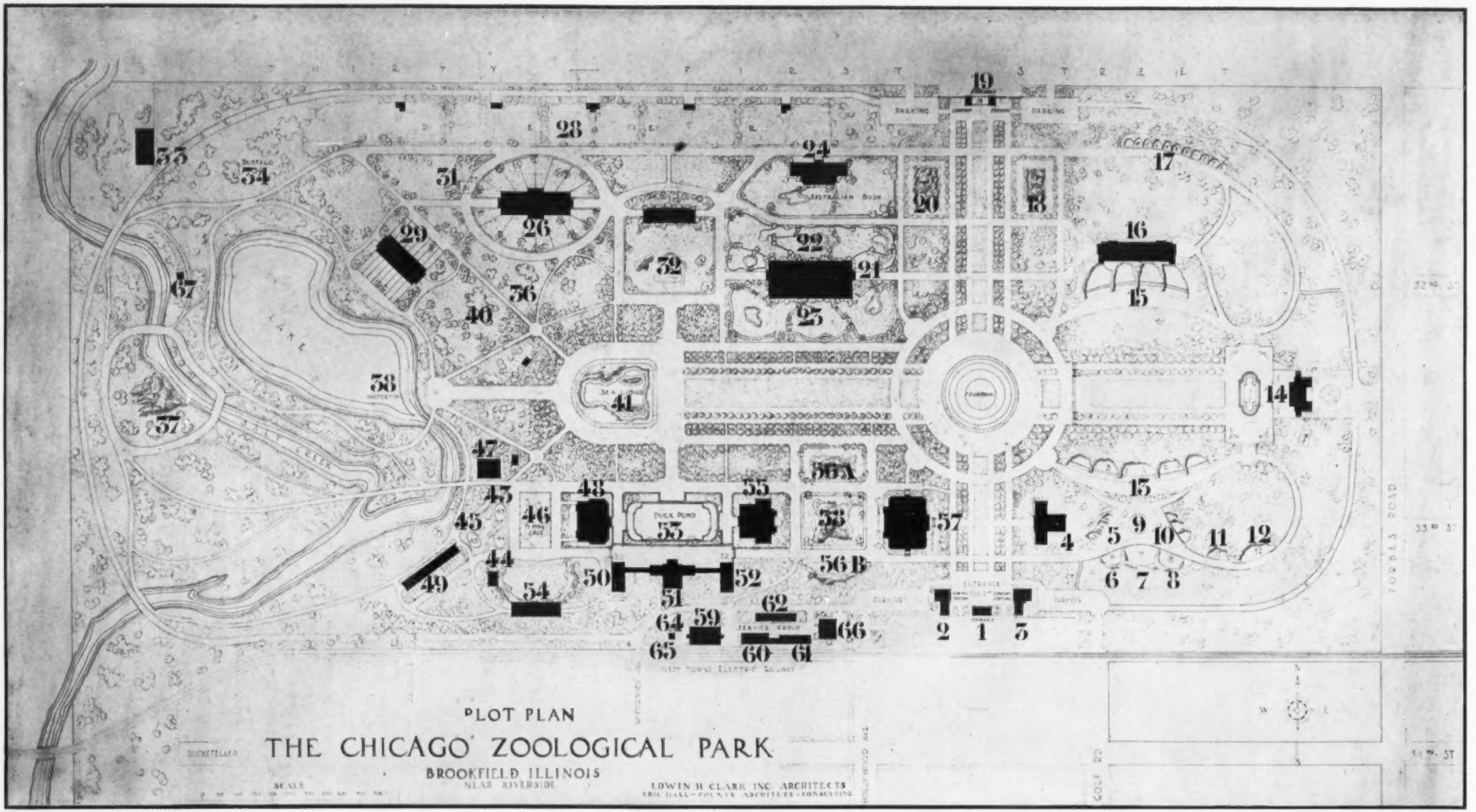
AQUATIC BIRD HOUSE: One large group picture with naturalistic background and wading pools. Smaller inclosures around public space have thin welded wire toward the public space and glass on all sides and top, affording a view directly out of building and allowing the use of outside planting as background. Public space wall areas of aluminum. Cove lighting. Future diving tank with glass front.

PERCHING BIRD HOUSE: Entire glass roof. Large center cage, sliding wire cage fronts.

REPTILE HOUSE: Many built-in top lighted cages, approximately 3 feet square by 8 feet high with painted naturalistic backgrounds in future. Glass fronts give an appearance similar to an aquarium. Cages serviced from the rear by a service passage. Large jungle scene in center of building, with surrounding public space. Four large swamp scenes entirely glass-inclosed; barless for turtles and alligators.

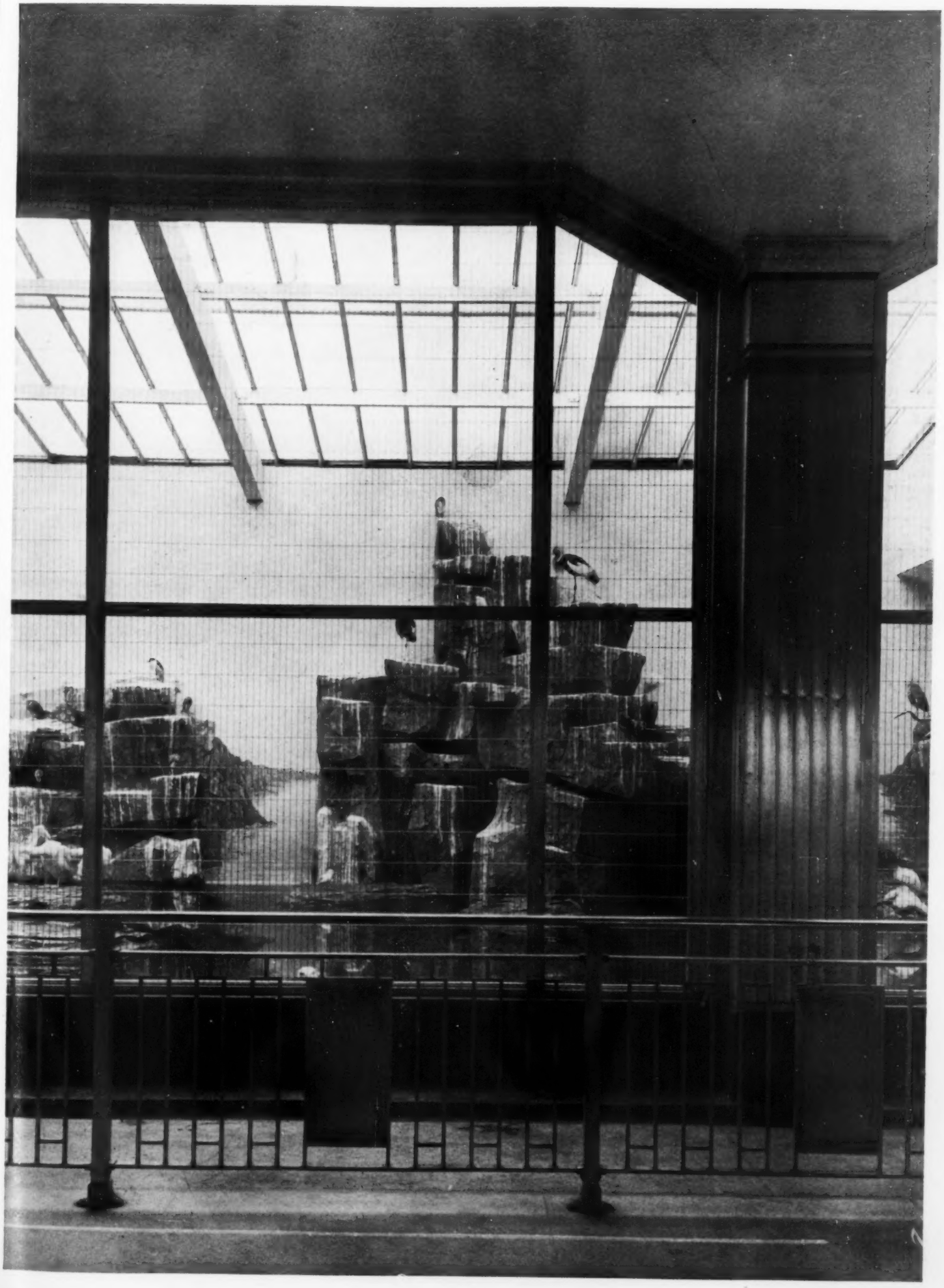
PRIMATE HOUSE: Approximately 50 inside cages, roughly 6 feet square, with large cages for apes grouped together. Public space surrounds large central skylighted inclosure 35 by 80 feet, tropically planted and providing three large cages for gibbens, and a group of smaller monkeys. There are thirty-six outside cages. Each group of cages has a shift cage off service.

ENTRANCE GROUP: Power house, garages, shops, commissary and hospital for animals. All these not fully completed.


PLOT PLAN
THE CHICAGO ZOOLOGICAL PARK
BROOKFIELD ILLINOIS
NEAR RIVERSIDE
EDWIN H. CLARK INC. ARCHITECTS
ERIC HALL—COLLABORATING ARCHITECTS—CONSULTING
THIRTY-FIRST STREET
PARKING
PARKING
AUSTRALIAN BUSH
DUCK POND
SERVICE GROUP
FOREST ROAD
GOLF RD
LAKE
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 26 28 29 31 32 33 34 36 37 38 40 41 43 44 45 46 47 48 49 50 51 52 53 54 55 56A 56B 57 58 59 60 61 62 64 65 66 67

(1) Entrance. (a) Administration. (3) Comfort stations. (4) Small mammals. (5-13) Bears. (14) Refectory. (15) Lions. (16) Lion house. (17) Wolves, etc. (19) Entrance, comfort stations. (21-23) Pachyderm house. (24) Australia. (26) Antelopes. (28) Deer. (29) Equine. (32) Small antelopes. (34) Buffalo. (36) Yak. (38) Waterfowl. (41) Sea Lions. (46) Flying cage. (47) Eagles. (48) Aquatic birds. (49) Pheasants. (50) Parrots. (51) Bird house. (52) Insects. (53) Duck pond. (54) Ostriches. (55) Reptiles. (57) Primate house. (58) Monkey island. (59) Power. (60-61) Commissary. (62) Shop. (66) Hospital.

DETAIL OF AQUATIC BIRD HOUSE INTERIOR (Right)



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CHICAGO ZOOLOGICAL PARK AT BROOKFIELD, ILL.

EDWIN H. CLARK, INC. ARCHITECTS

TROWBRIDGE PHOTOGRAPHS:

(1) Aquatic Bird House.

(2) Birds.

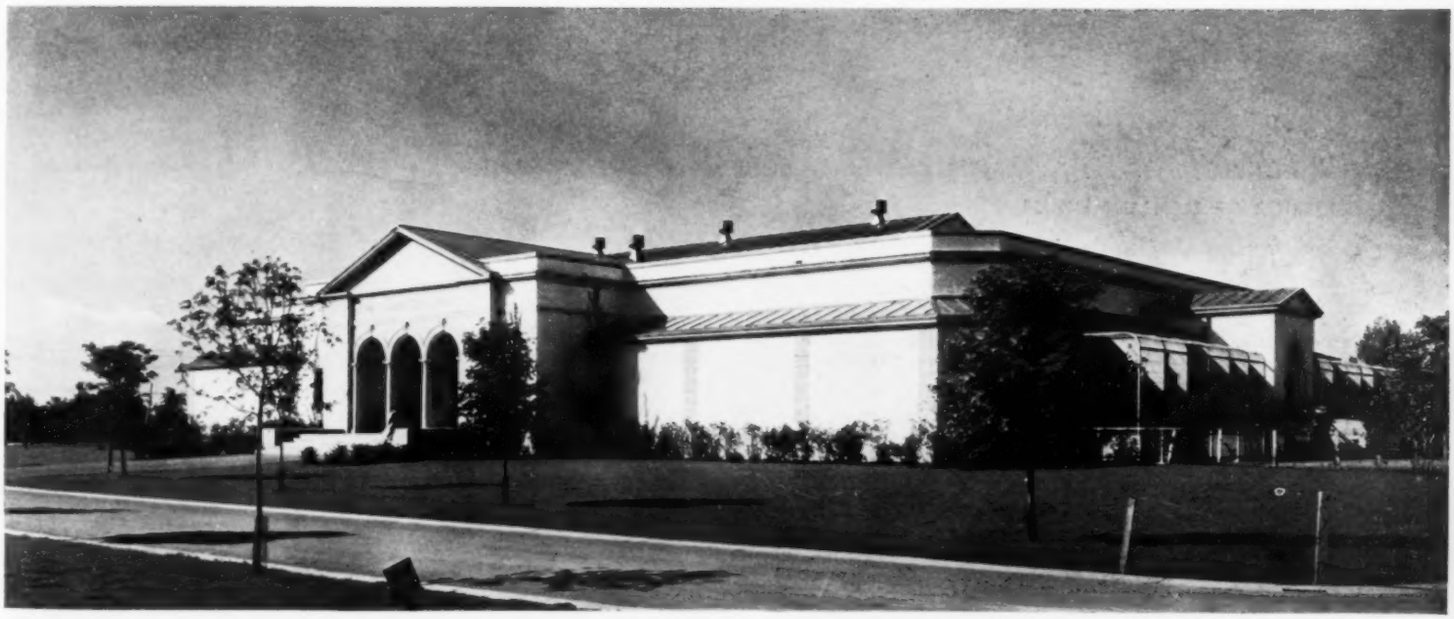
(3) Entrance Pavilion.

(4) Small mammals.

(5) Primates.

(6) View over pool towards Reptile and Bird Houses.

4



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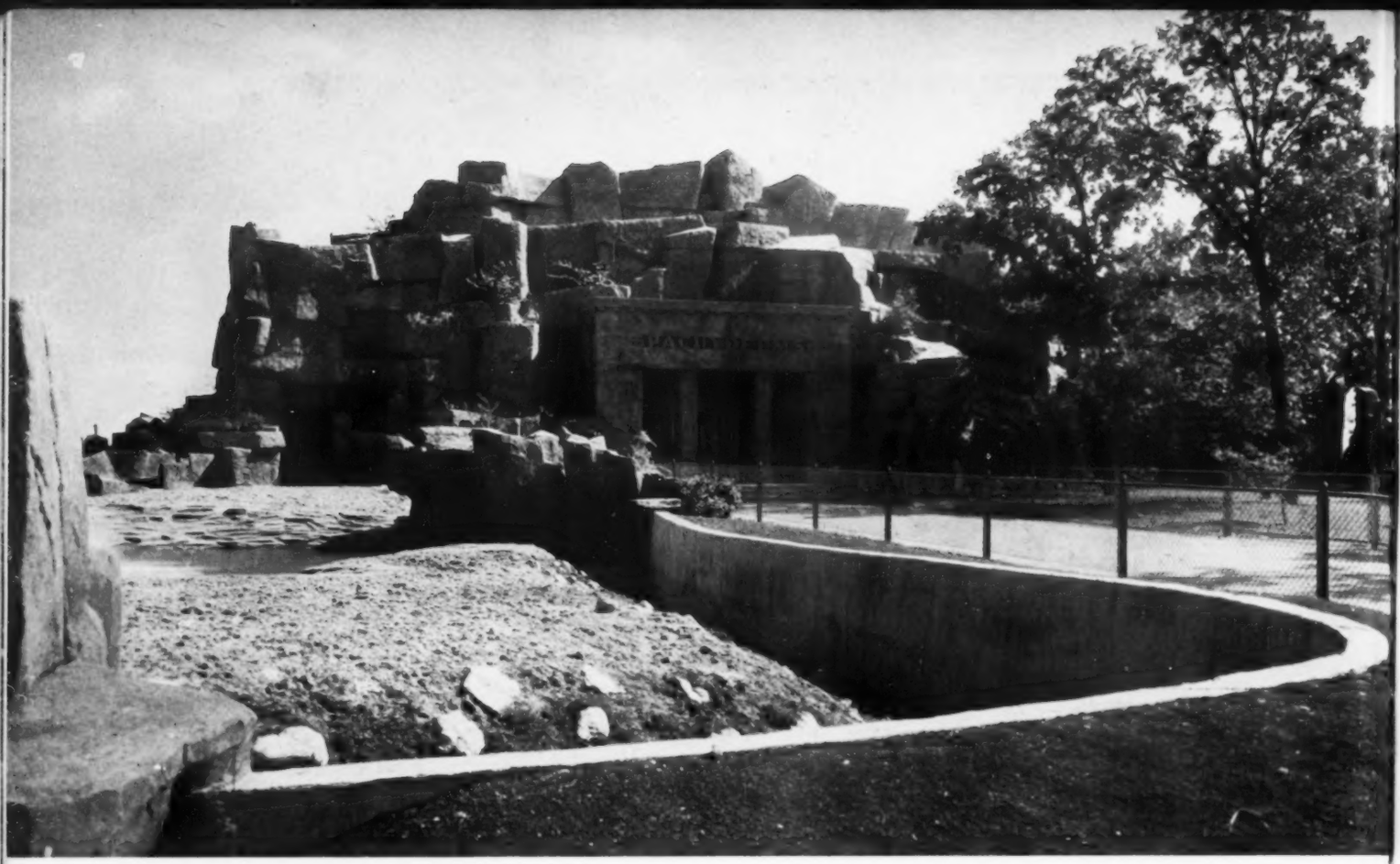


EXTERIOR OF ELEPHANT HOUSE

INTERIOR

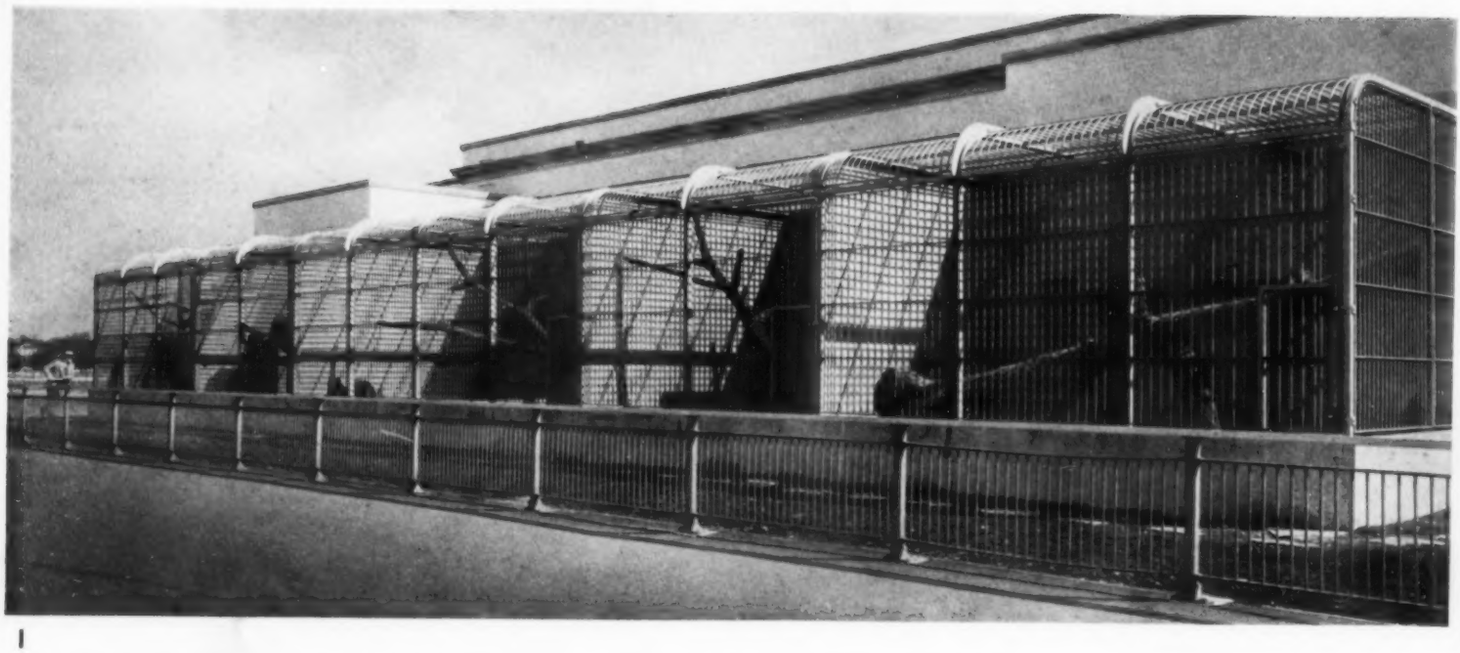
CHICAGO ZOOLOGICAL PARK BROOKFIELD, ILLINOIS

EDWIN H. CLARK, INC.
ARCHITECTS

LION HOUSE

Trowbridge Photographs

REPTILE HOUSE



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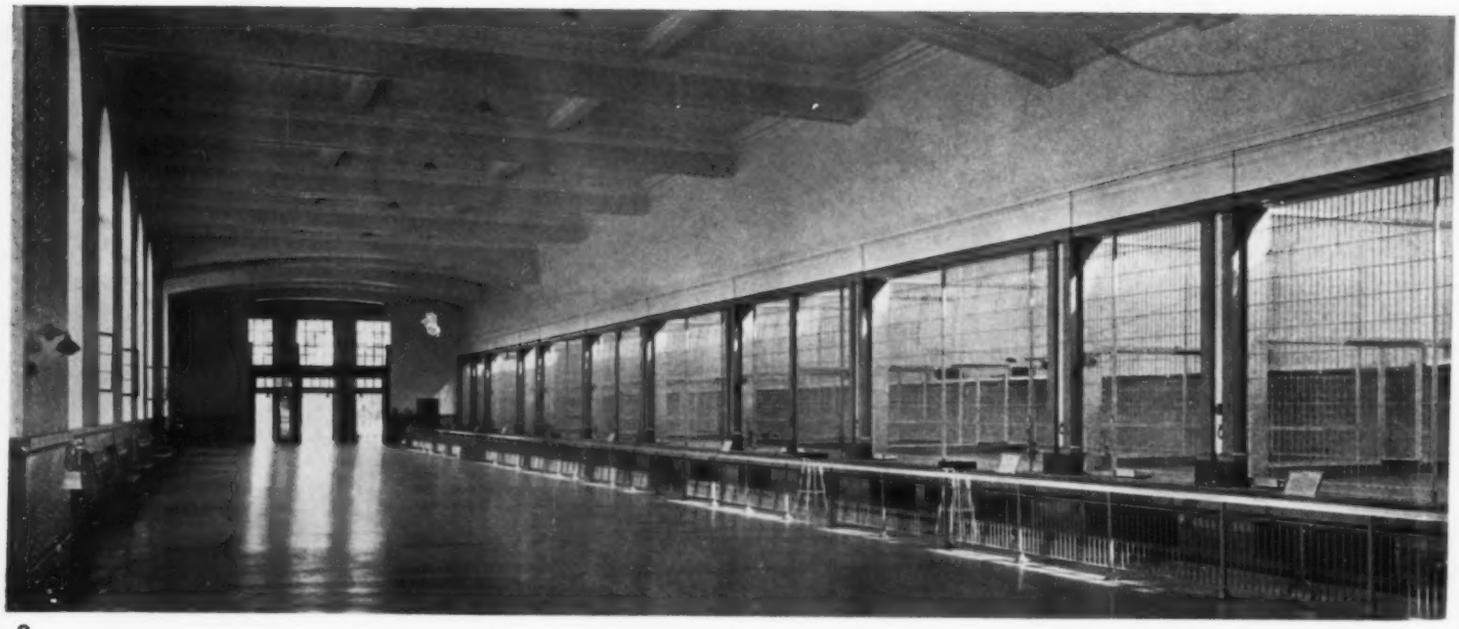

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TROWBRIDGE PHOTOGRAPHS:

(1) Exterior cages of Primate House.

(2) Interior of Lion House.

(3) Interior of Parrot House.

CHICAGO ZOOLOGICAL PARK at BROOKFIELD, ILL.

EDWIN H. CLARK, INC., ARCHITECTS

BETHPAGE STATE PARK AT FARMINGDALE, LONG ISLAND

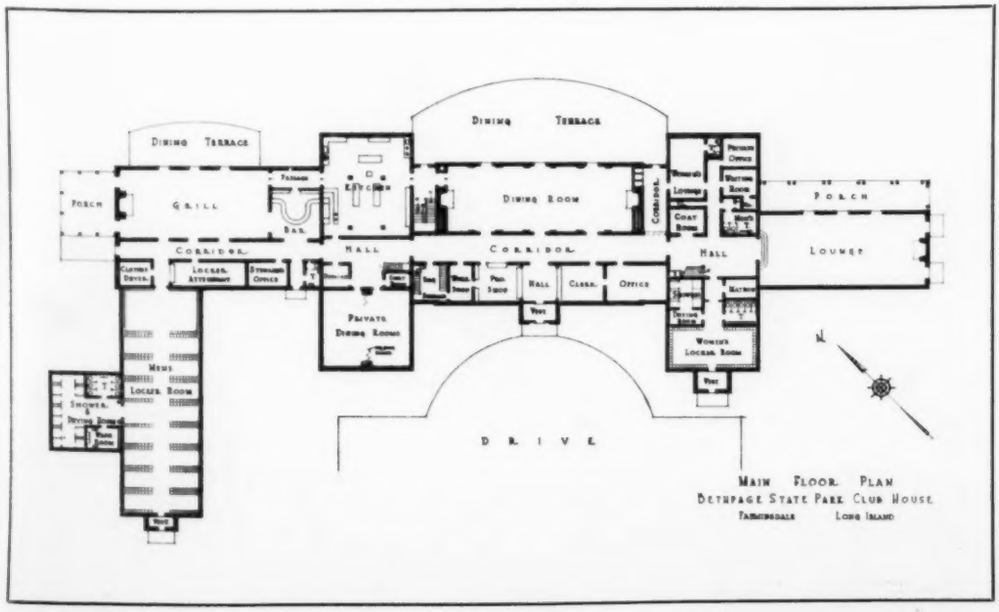
In Bethpage State Park near Farmingdale, the Long Island State Park Commission is constructing what will be one of the most modern and up-to-date public country clubs. There will be four 18-hole golf courses all centering from a new clubhouse now under construction, polo fields, bridle paths, livery stables, picnic and playground areas. The site of the new clubhouse is a commanding one: a broad, flat hilltop overlooking the golf courses.

The building is a whitewashed brick and handsplit white shingles with a roof of red cedar shingles. The main portion of the building has a total length of 358 feet, exclusive of open terraces across the east end of the lounge. From the western end of the main mass of the building, the men's locker room wing, lower than the other masses of the building, runs 96 feet southward with a width of 33 feet. The main entrance leads into a vestibule and lobby which, in turn, give access to broad corridors, all with quarry tile floors, connecting the stair halls and various rooms.

The men's locker room is to be finished with trussed high ceilings, plastered walls and ceiling panels of plaster between trusses. This room will contain 300 full height lockers and 75 smaller box lockers set up on cement bases above a rubber tile floor. There are also ample shower rooms, washrooms, and toilets.

Across the corridor from the men's locker room there is a large grill 62 by 30 feet with random pattern quarry tile floors and a high wainscot of stained pine above which acoustical plaster stained to an old soft color will cover the walls and high sloping ceiling between the heavy wood trusses stained to match the wainscoting. A large fireplace almost fills the end wall, except for the space taken out by two pairs of doors leading to a screened dining porch. Three other pairs of glazed doors open on a paved terrace along the north side of the grill. In a large alcove of the grill is a horseshoe-shaped bar. A well-equipped kitchen, 36 by 44 feet, supplemented by extensive storage, refrigeration and preparation rooms in the basement, is situated between the grill and the Canton room (the main dining room).

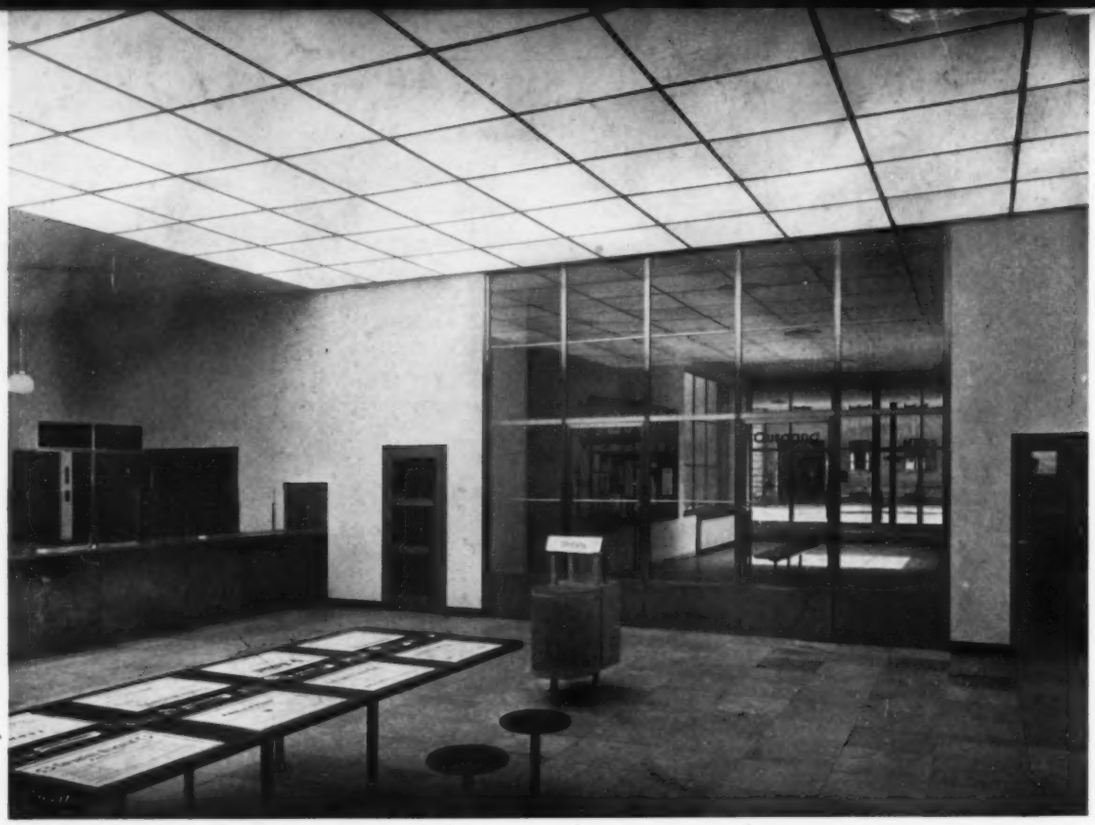
The Canton room, 75 by 29 feet, is two stories high with dormer windows in the slope of the trussed ceiling on one side and balconies from the conversation gallery in the second floor on the other side. A large fireplace with a wood mantel in old colonial style will occupy the center of each end wall. Four large windows and three pairs of French doors with sidelights and transoms on the north wall of this room open on a flagstone terrace.
In addition to these main rooms, there will be private dining rooms, lounge, card rooms and other facilities.

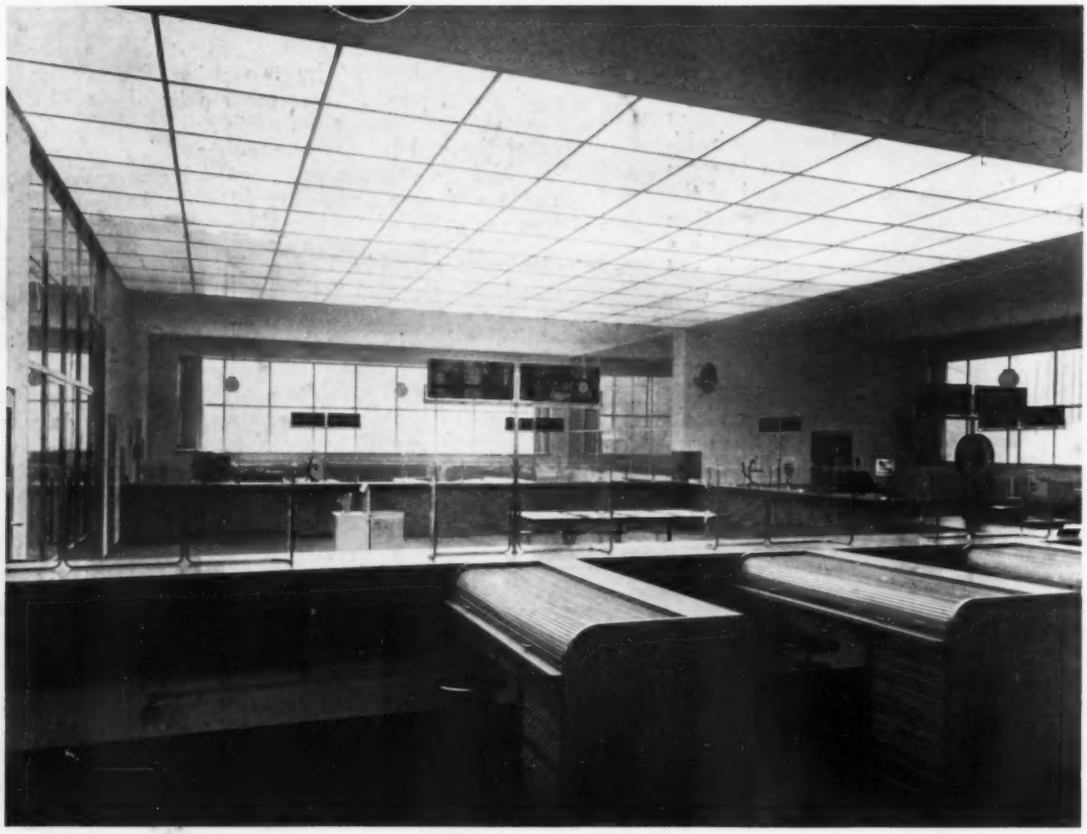


MAIN FLOOR PLAN
BETHPAGE STATE PARK CLUB HOUSE
FARMINGDALE LONG ISLAND

From a large hall at the east end of the main corridor an archway opens into the lounge which is down three steps from the hall. This room will be 70 by 31 feet with a large fireplace and mantel at the far end. There will also be a women's locker room with 56 full size lockers, and showers, dressing rooms, and toilets.

The clubhouse is under construction and will be completed in time for the 1935 golf season.





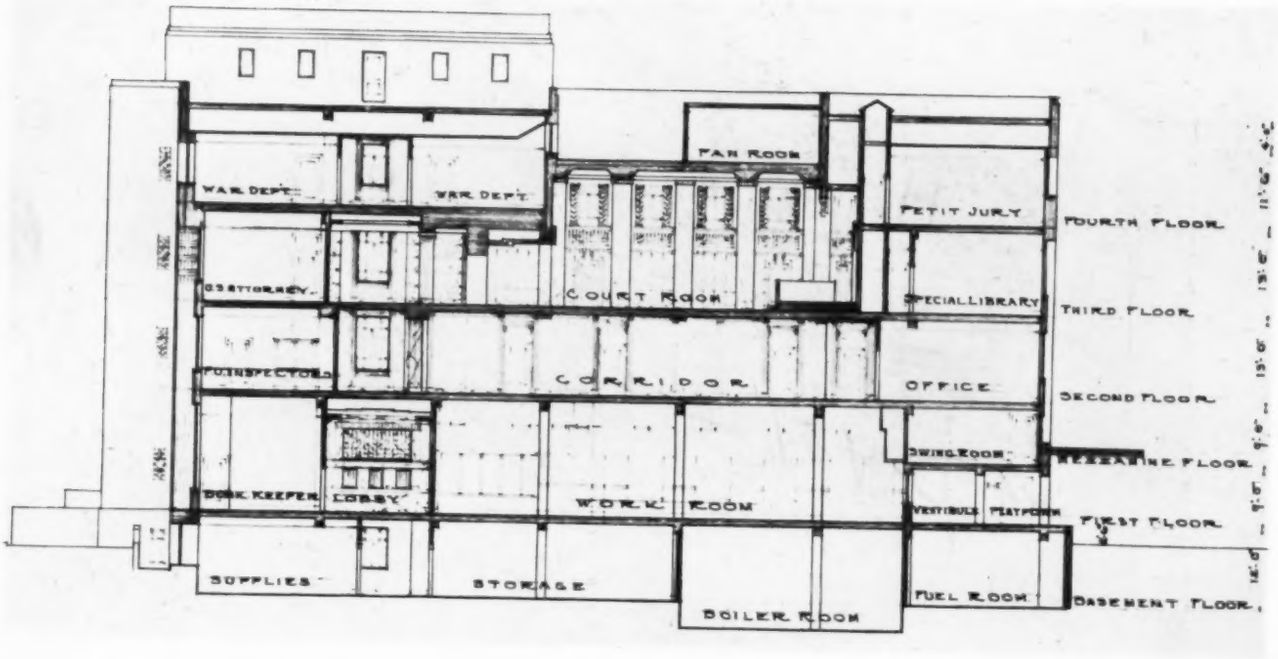
POST OFFICE IN MUNICH, GERMANY

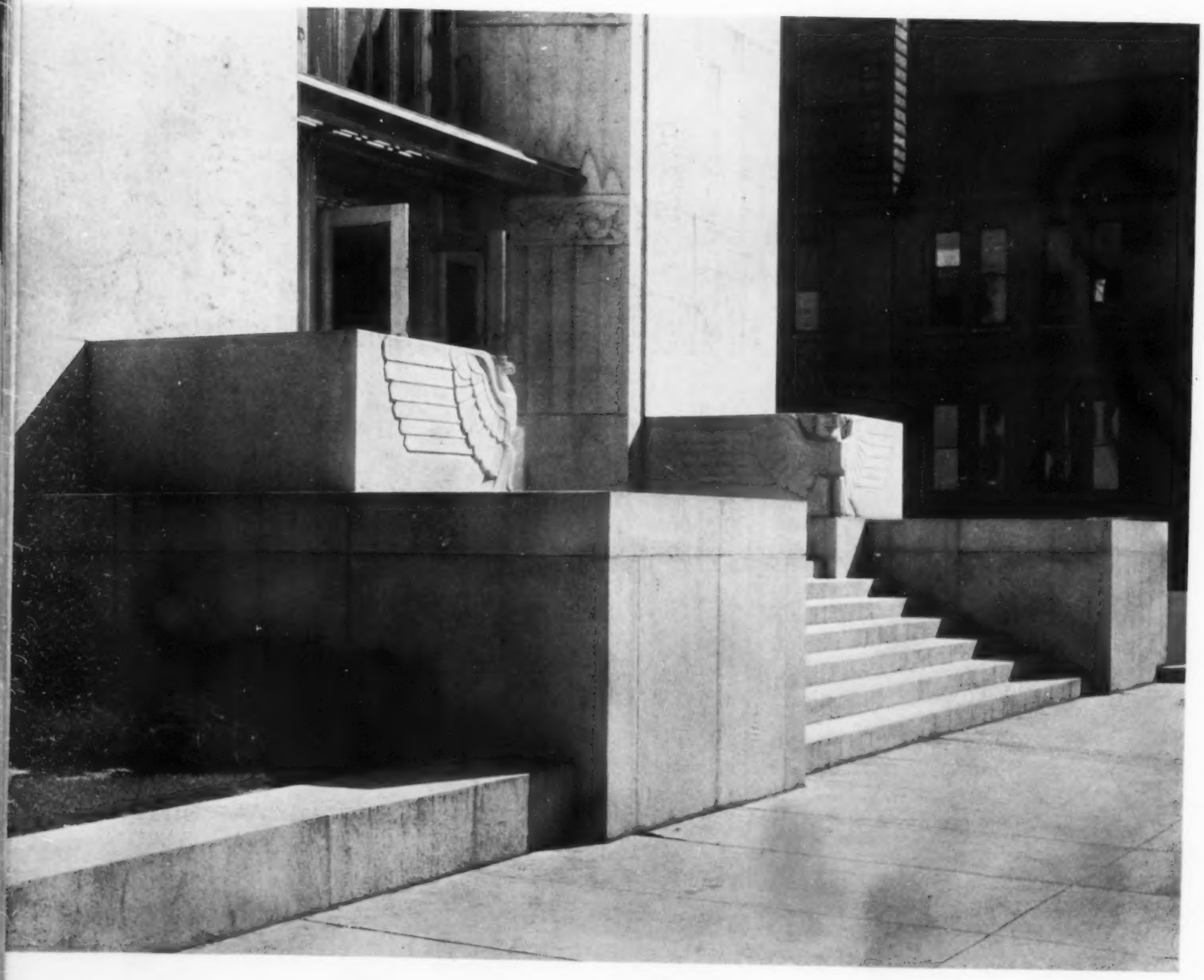
Photograph by R. Tebbs

R. H. HUNT COMPANY, ARCHITECTS
SHREVE, LAMB AND HARMON
CONSULTANTS

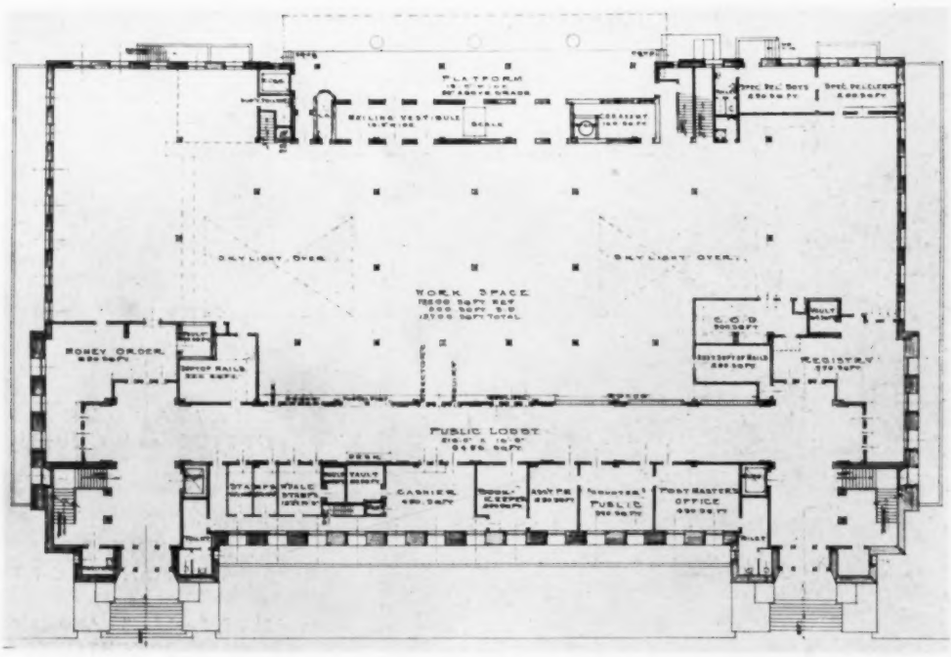
POST OFFICE and COURTHOUSE

CHATTANOOGA, TENNESSEE


FAN ROOM
WAR DEPT.
WAR DEPT.
PETIT JURY
FOURTH FLOOR
ATTORNEY
COURT ROOM
SPECIAL LIBRARY
THIRD FLOOR
INSPECTORS
CORRIDOR
OFFICE
SECOND FLOOR
SWING ROOM
DOOR KEEPER
LOBBY
WORK ROOM
VESTIBULE
FIRST FLOOR
SUPPLIES
STORAGE
BOILER ROOM
FUEL ROOM
BASEMENT FLOOR



Photographs by R. Tebbs



R. H. HUNT COMPANY
ARCHITECTS

SHREVE, LAMB AND HARMON
CONSULTANTS

U. S. POST OFFICE AND COURTHOUSE CHATTANOOGA, TENN.

STAIRCASE

COURT ROOM

Photographs by R. Tebbs

CHATTANOOGA POST OFFICE and COURTHOUSE

R. H. HUNT COMPANY
ARCHITECTS

SHREVE, LAMB AND HARMON
CONSULTANTS

CHECK LIST FOR NEW CONSTRUCTION AND MODERNIZATION OF STORES

INCLUDING

DIMENSIONS OF STORE EQUIPMENT

STORE LOCATION

SURVEY TRADE AREA.

Undertake survey of volume of traffic at considered location, analyzed by hours of the day. Evaluate the purposes of traffic. Crowds of working people going to and from places of business at opening and closing time are very moderate buyers. Classify traffic according to sex. Determine increase in population. List existing retail outlets, density, shifting of retail trade area, relation of rents to estimated sales.

LOCATE DRUG STORES AND CIGAR STORES DIRECTLY IN THE TRAFFIC STREAM.

A survey of 250 drug stores located in the metropolitan area of St. Louis indicates that 84 per cent of them have a corner location.

LOCATE STORES FOR HIGHEST TRADE APPEAL.

Advantages of traffic. Transportation convenience. Today, on account of the existence of definite districts for shopping, it is considered desirable to locate near stores of similar character. This is because stores of a similar character attract a uniform type of trade. The element of competition also tends to improve salesmanship and to encourage buying. There is a convenience to the buyer by grouping. Customers desire to compare values. Location passed by the greatest number of people is most valuable for retail store purposes.

CONSIDER CORNER LOCATION.

It is estimated that corner locations are approximately 30 per cent more valuable than locations within a block. The corner location may lose its natural advantages in a crowded area.

Galloway

LOCATION OF STORES IS DETERMINED BY TRAFFIC VOLUME. ANALYSIS SHOULD BE MADE OF PASSING TRAFFIC TO INDICATE NATURE OF TRAFFIC AND TYPE OF GOODS THAT WILL ATTRACT.

CHECK LIST FOR NEW CONSTRUCTION AND MODERNIZATION OF STORES

RETAIL STORE SURVEY

Location ..... Type ..... Owner .....

This analysis of an architectural problem should be made by the architect with cooperation of owner in order to determine: suitability of store location; need for modernization; desirability of enlarged appeal; possibilities for store enlargement or reduction in size. This study should aid in determining the type of building and character of arrangement and design.*

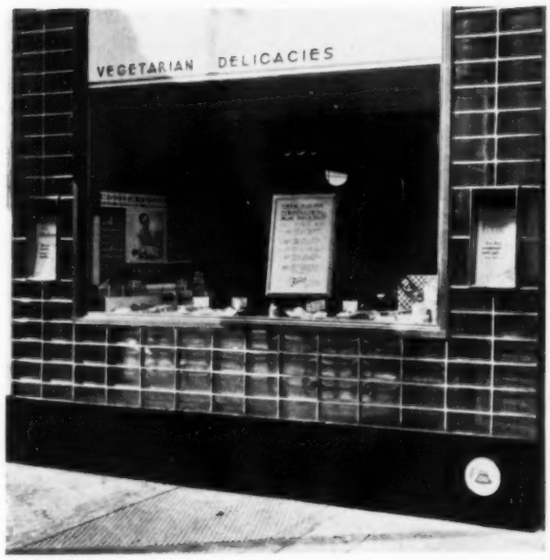
TRADING AREA AND STORE LOCATION	CHECK AS INDICATED		
1. Trading area, kind	Central Business	Smaller Business Area	Mainly residential
2. Has community a neighborhood newspaper?	Yes	No	
3. Main trade expected from	Transients	Mixed	Residents
4. Racial composition of customers	Mainly native white	Mainly native white, negro and foreign born	Mainly negro and/or foreign born
5. Income status of customers	High	Medium	Low
6. Competition	Easy	Bearable	Severe
7. Probable best trade periods	Day and night	Day	Night
8. Barriers blocking trade	River or canal	R. R. yard	Heavy traffic street
	Industrial obstruction	Park	
9. Store located on	Transfer point or terminal	Bus or street car line	Main motor traffic artery
10. Rental levels of stores in area	Low	Satisfactory	High
11. Traffic regulations affecting trade	None	Parking restrictions	One-way street
12. Traffic density { Auto, street car and bus	High	Medium	Low
12. Traffic density { Pedestrian	High	Medium	Low
13. Special influence on type and extent of trade	School	Institution	Theater
	Playground		
14. Surrounding stores { class	High	Middle	Low
14. Surrounding stores { coverage by kind of stores	Complete	Only partial	Very limited
15. Probable future of area	Growing	Static	Receding

EXTERIOR OF THE STORE			
1. Prominence	Prominent	Obscure	
2. Exterior lighting, signs or other	Good	Bad	
3. City street lighting	Bright	Dim	
4. Store located on best side of street?	Yes	No	
5. Store located on a corner?	Yes	No	
6. Main entrance at corner?	Yes	No	
7. Side entrance?	Yes	No	
8. Is entrance	At street level?	Up or down ramp?	Up or down steps?
9. Type of door?	Double	Single	Revolving
10. Windows, structure and character	Good	Bad	
11. Floor of windows	Too low	Too high	O. K.
12. Window backs	Low	High	Closed
13. Window lighting	Adequate, Indirect	Adequate, Visible Lamps	Inadequate
14. Cellar gratings, trap doors, etc., under windows	No	Yes	

INTERIOR OF THE STORE			
1. General arrangement	Open	Satisfactory	Crowded
2. Ceiling height	High	Average	Low
3. Illumination { Artificial light	Excellent	Adequate	Unsatisfactory
3. Illumination { Daylight	Excellent	Adequate	Unsatisfactory
4. Points of congestion { structure	Good	Fair	Poor
4. Points of congestion { arrangement	Good	Fair	Bad
5. Visibility from point to point in store	Good	Fair	Bad
6. Permanent obstructions to interior traffic	Yes	No	
7. Ventilation	Good	Fair	Bad
8. Arrangement of fixtures	Good	Fair	Poor
9. General character of:			
(a) Fixtures { Type	Modern	Satisfactory	Obsolete
(a) Fixtures { Quality	Fine	Good	Poor
(a) Fixtures { Usefulness	Good	Fair	Poor
(b) Equipment { Type	Modern	Satisfactory	Obsolete
(b) Equipment { Quality	Fine	Good	Poor
(b) Equipment { Usefulness	Good	Fair	Poor

Sketch general shape of floor space showing windows, doors and placement of fixtures with estimated main dimensions. Specifically note structural obstacles such as pillars, pilasters, walls, unequal floor levels, unfortunate angles and elbows.

*Adapted from Chart No. 6, U. S. Department of Commerce.



F. S. Lincoln

GLASS BRICK, USED TO FACE STORE BUILDING, WITH ADVANTAGES OF INCREASED INTERIOR LIGHT AND NO REQUIRED WALL FINISH. GLASS BRICKS ARE DIMENSIONED 5" x 10" x 2¾", 5" x 5" x 2¾"; VACUUM GLASS BRICK ARE 5" x 5" x 2¾"; APPROXIMATE COST, 60¢ PER SQUARE FOOT.

Hedrich-Blessing

A MODERNIZED BAKE SHOP, CHICAGO. GORDON S. GUNDLING, DESIGNER. INTERIOR WALLS ARE PAINTED IN CANARY YELLOW AND WHITE, TRIMMED WITH CHARTREUSE GREEN AND BLACK. LETTERING IS IN BURGUNDY RED.

GENERAL

REPAIR ROOF.

CHECK SKYLIGHTS FOR REFLASHING, REPAINTING, GLAZING.

REPAIR CRACKS AND JOINTS IN MASONRY WALLS.

REMOVE CORNICES, SCROLL WORK, CARVINGS AND OTHER DECORATIVE NON-ESSENTIALS.

INCREASE GLASS AREA OF STORE FRONT.
Permitting view of selling space from sidewalk.

REDUCE EXCESSIVE DEPTH ORDINARILY GIVEN TO WINDOWS.
Depth of show windows varies from 3′ for jewelry stores to 4′ - 4½′ for men's stores.

REMOVE STEPS AT ENTRANCE.
Where there are differences in street level and floor level, gently sloping ramps are preferred.

STUCCO EXISTING EXTERIOR BRICKWORK TO SMOOTH, NON-DUST GATHERING SURFACE.

APPLY NEW AND SMOOTH MATERIALS TO STORE EXTERIOR.
Structural glass; stainless metal; tile.

ADD OR REPLACE STORE SIGN.
Legibility; neon tube type; viewed by traffic.

ADD VENETIAN BLINDS TO SHOW WINDOWS.
Facing South and West.

INSTALL NEW SHOW WINDOWS.
Use low exterior plate glass windows with head not in excess of 8′ above sidewalk with regard for vision of passers-by; dual type show window; aluminum, bronze or stainless steel frame.

ADD VENTILATION TO SHOW WINDOWS.

INCREASE PROTECTION OF MERCHANDISE FROM SUNLIGHT AND HEAT.
Awnings hung so as to permit escape of heated air; curtains.

ADD PARKING SPACE.
The idea has been advanced "that every building should provide its occupants with parking space, just as is now done with respect to heat, light, elevator service, drinking water." Parking space for customers is given without charge by many store owners of the middle and far west. A merchant referring to his garage in connection with his store reported 26,000 cars parked during the first year and 43,000 cars during record year—a 65 per cent increase during the record year of its operation.

PROVIDE FOR LOADING OF DELIVERY AUTOS.

STORE INTERIOR

REARRANGE STORE INTERIOR FOR CONVENIENCE TO PURCHASER.

There are three basic principles in modern store arrangement, particularly for the small store. These are: (1) Open display, (2) Keeping related items of merchandise together, and (3) Properly placing impulse and demand merchandise within the store.

REDUCE LENGTH OF STORE TO IMPROVE SUPERVISION.

WIDEN STORE TO PERMIT WIDER OR ADDITIONAL AISLES.

4′ minimum aisle width; 6′ preferable width.

PAINT INTERIOR WALLS WITH LIGHT-REFLECTING SURFACES.

SUBORDINATE DISPLAY FACILITIES TO MERCHANDISE.

Display levels determined by lines of vision, nature of merchandise and ease of handling. Equipment easily moved, not obstructive to view of store.

USE COLOR TO FOCUS ATTENTION ON MERCHANDISE.

Neon signs; color lighting; wall show windows.

LOWER OR RAISE STORE FLOOR TO SIDEWALK LEVEL.

LOCATE WRAPPING COUNTERS AT REAR OF STORE.

RELOCATE DEMAND AND IMPULSE GOODS SO AS TO CONTROL CIRCULATION.

PROVIDE DRINKING FOUNTAIN, TELEPHONE SERVICE, LOCKERS.

USE FLAT DISPLAYS AT CENTER OF STORE, WHEREVER POSSIBLE, TO INCREASE VISIBILITY OF MERCHANDISE.

DISCARD FIXTURES DESIGNED FOR PRODUCT OF A SINGLE MANUFACTURER.

LAY A NEW FLOOR.

Tile, terrazzo, linoleum.

PROVIDE ADDITIONAL STORAGE SPACE.

REFINISH WALLS WITH SMOOTH CEMENT FINISH OR OTHER SANITARY MATERIAL.

Hard plaster painted; washable fabric; plywood; flexwood.

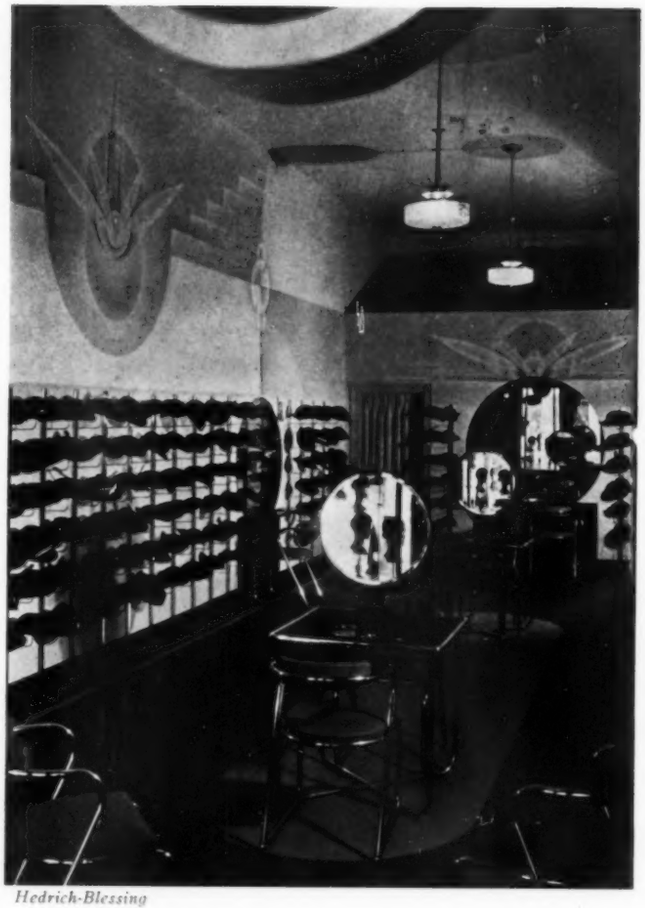
REFINISH CEILING TO IMPROVE LIGHTING.

Flat paint, white or pale shades.

PROVIDE ADDITIONAL BUILT-IN SHELVING.

DAMPPROOF BASEMENT WALLS.

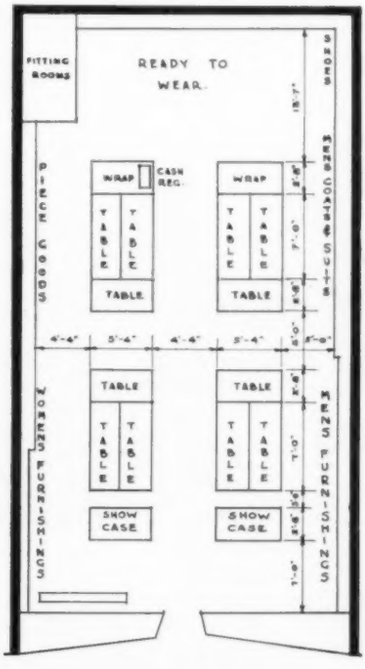
ADD OFFICE WITH LOCATION FOR SUPERVISION.

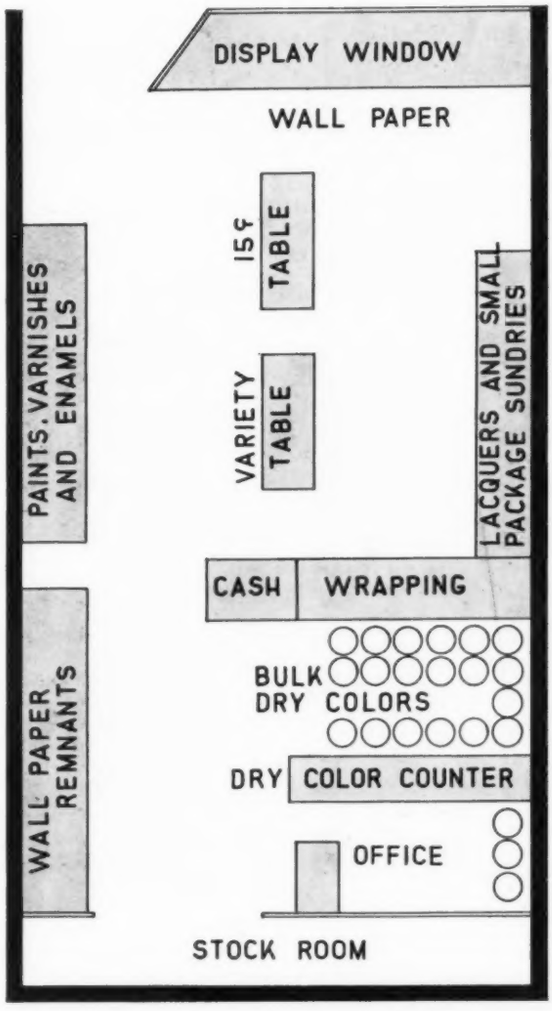


Hedrich-Blessing

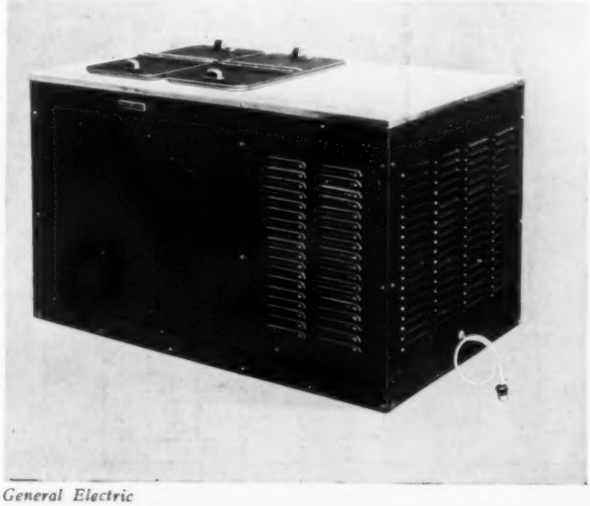
MILLINERY STORE WITH ORDERLY DISPLAY OF HATS ON RACKS CONVENIENT FOR SELF-SERVICE. FITTING STANDS SERVE AS FURNISHING OF INTERIOR. GORDON S. GUNDLING, DESIGNER.

PLAN OF SMALL GENERAL CLOTHING AND DRY GOODS STORE FOR TOWN OF MODERATE SIZE. A. J. LUTHER & CO., CHICAGO.





ARRANGEMENT FOR A SMALL PAINT STORE. FOUR INTERESTING FEATURES: (1) A 15¢ TABLE; (2) A VARIETY TABLE; (3) BULK DRY COLORS IN DEPARTMENT BY ITSELF; (4) WALLPAPER REMNANT DEPARTMENT. THE REGULAR PAINT, VARNISH, AND ENAMEL STOCK IS DISPLAYED ON OPEN SHELVES.



General Electric

COMPACT AND SANITARY ICE CREAM STORAGE UNIT.

STORE INTERIOR

REPLACE OLD PARTITIONS WITH NEW FLUSH TYPE, GLAZED.

ADD FIRE-RESISTANT VAULT.

Protected steel or reinforced concrete frame with reinforced concrete panels 10 inches thick; brick or plain concrete panels 12 inches thick for six hours heat-resistance.

INCLOSE ALL SHAFTS.

Concrete; 8″ brick; 4″ tile.

REMOVE WALL SHELVING THAT IS OUT OF REACH.

Upper deck wall shelving is of doubtful value, as the merchandise cannot be clearly seen or reached by either the customer or the clerk. Merchandise displayed on open shelving invites more attention than that which is inclosed.

SURFACE FLOOR WITH SANITARY MATERIAL.

Terrazzo, marble, travertine, tile, linoleum. Space behind counters and in offices may be cement covered with linoleum. Where fixtures are placed on flooring which requires washing all bases to cases should be of material to withstand this treatment.

INSTALL PAPER AND TRASH CHUTES.

Provide space below for accumulation; provision for salvaging by shredding, baling; also burning of all trash.

INSTALL THERMOSTATIC CONTROL FOR HEATING.

PROVIDE REST ROOM FOR CUSTOMERS.

Washroom facilities; telephone; radio.

INSTALL ADEQUATE SPRINKLER AND STAND-PIPE PROTECTION.

PROVIDE OTHER FIRE-FIGHTING EQUIPMENT.

Sand, buckets, fire extinguishers, axes, etc., placed in hall with stand-pipe in glazed cabinet. Consult requirements of the National Board of Fire Underwriters.

PROVIDE FIRE EXITS AT REMOTE SIDES OF BUILDING.

Doorways at least 3′ wide.

ADD WASHROOM FOR EMPLOYEES.

Usually placed in back of the utilities where noise and confusion can be kept away from the selling area. The number of fixtures provided for employees determined on basis of allowing one water-closet for every eight persons; one wash basin for every ten persons.

PROVIDE LOCKER ROOM AND LOCKERS FOR EMPLOYEES.

Usually placed in basement.

PROVIDE NURSERY AND PLAYROOM FOR CHILDREN OF CUSTOMERS. (DEPARTMENT STORES.)

Provisions for slides, swings, sand piles, merry-go-round. Roof space preferred.

BASIC DIMENSIONS FOR STORES

CEILING HEIGHTS FOR STORE BUILDINGS ARE NOT SUFFICIENTLY STUDIED AND NUMEROUS FAILURES ARE DUE TO THIS FAULT. THE HEIGHTS INDICATED BELOW, WITH SLIGHT MODIFICATIONS, WILL PROVE SATISFACTORY.

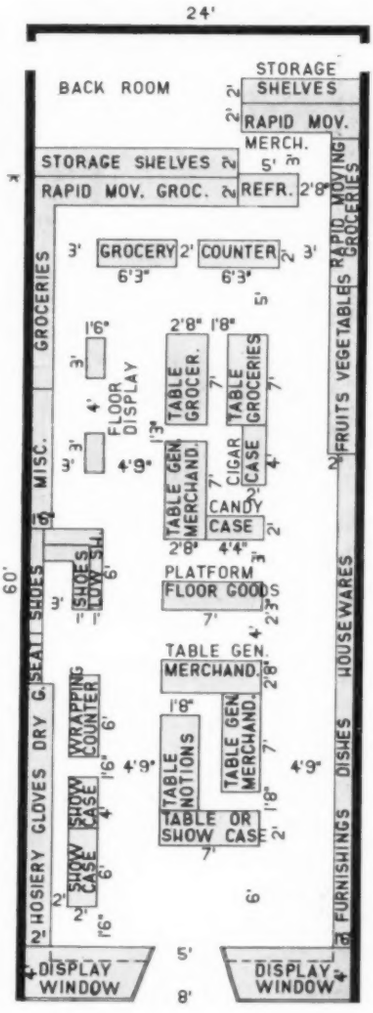
Basement: 10 to 14 feet clear.

Main selling floor: 12 to 14 feet clear; in the case where mezzanines are installed, 18 to 20 feet in clear.

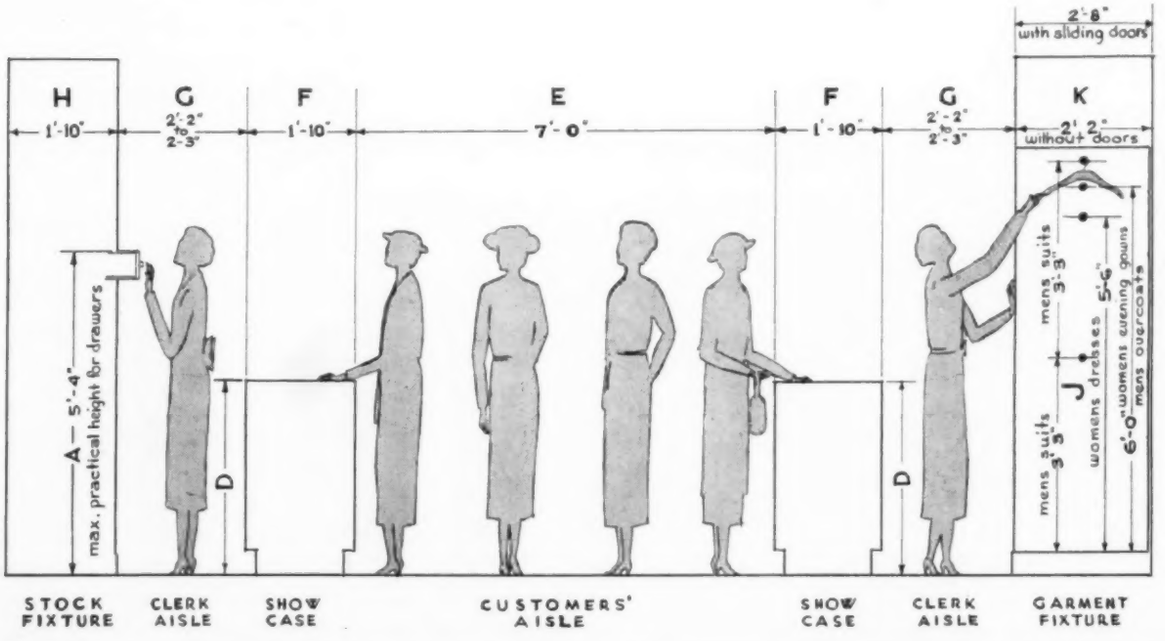
THE SKETCH ON PAGE 442 SHOWS A TYPICAL SCHEME OF FIRST FLOOR FIXTURES.

Back fixtures take up the space B, and the show cases and counters, the space C. The clerk only has access to the stock-carrying back fixture and works entirely in the aisle designated at D, the customer being confined to the aisle A. The back fixture varies in depth, depending upon the merchandise carried, from 18" to 33", the tendency being to use, where possible, a shallower fixture. The aisle between the back fixture and the counter (space C), should be a minimum of 22" and a maximum of 27", depending upon (1) whether drawers or shelving are used, (2) the number of clerks in a given section, and (3) the merchandise carried.

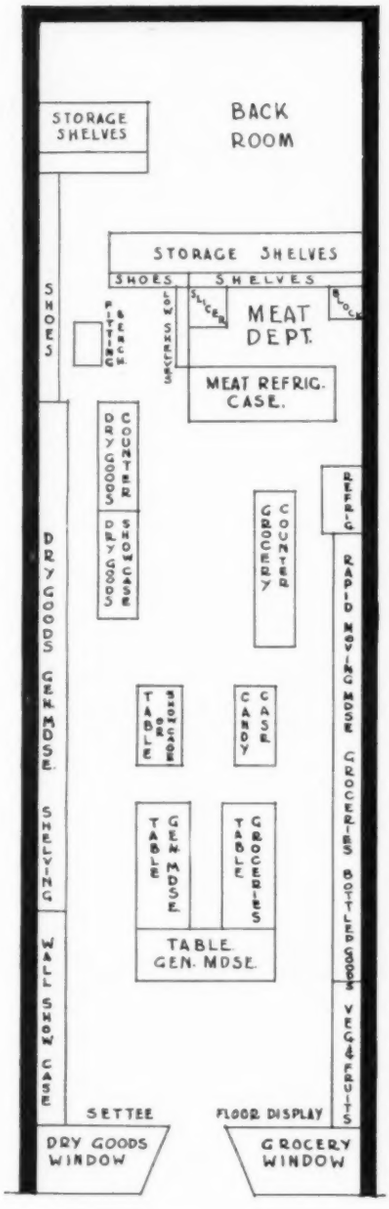
The depth of the counter, dimension C, as a rule varies from 18" to 30", but 24" is the usual size. The deeper counters are occasionally used in piece goods. The height of the counter will vary from 34" (if customers are to be seated) up to a maximum height of 40"; 38" being the average height. There are certain sections,



PLAN OF SMALL DEPARTMENT STORE FOR RURAL COMMUNITY. BECAUSE OF LOW TABLE THERE IS CLEAR DISPLAY VISIBILITY AND THE INVITATION TO EXAMINE GOODS BY CUSTOMER. BY CARL W. DIPMAN OF "THE PROGRESSIVE GROCER."



BELOW
BASIC DIMENSIONS FOR AISLES, CABINETS, COUNTER AND STORAGE HEIGHTS DESIRABLE FOR STORES. COURTESY, GRAND RAPIDS STORE EQUIPMENT CO.



PLAN OF STORE, 18'-0" WIDE, FOR SALE OF GROCERIES AND GENERAL MERCHANDISE. NOTE ALMOST COMPLETE ABSENCE OF COUNTER SPACE.

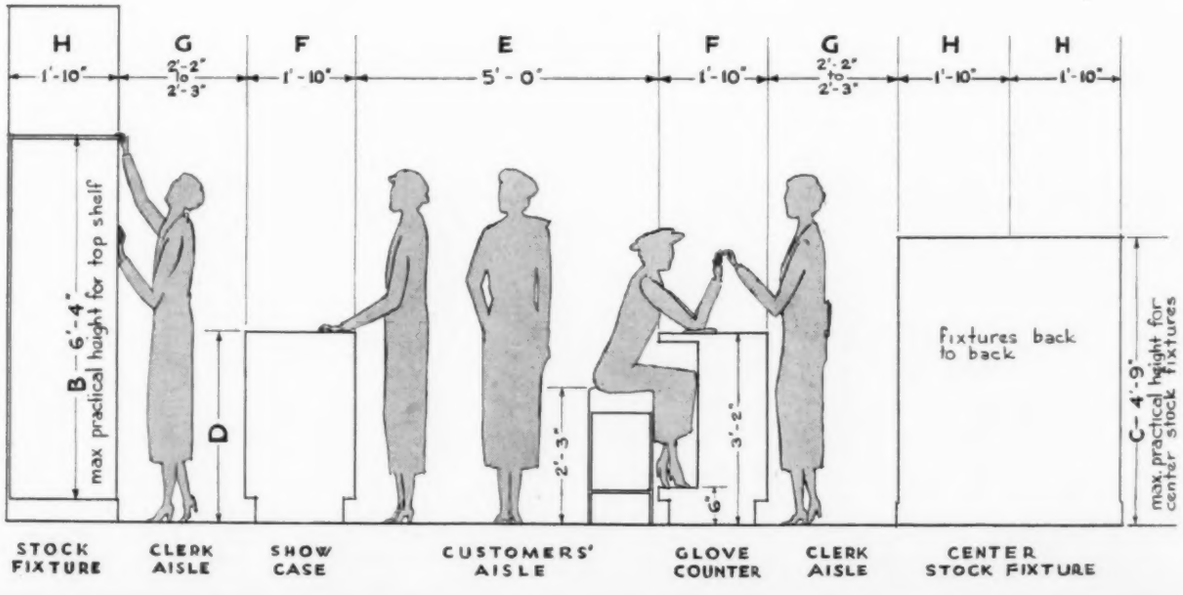
however, which require a special type of equipment; for example, the glove department where the clerk has to fit the glove on the customer's hand.

The back fixture, when placed against the wall, is usually carried to a height of from seven feet to as high as ten or twelve feet; the upper part being used purely for display features. The 7-foot maximum height for shelving is preferred as the trend is definitely away from high shelving. When placed in the center of the floor it is usually kept below five feet in height to permit of visibility over the whole floor. In the center islands, two such back fixtures are placed back to back, which with their counters form an island, of a type we will call X (figure I). The over-all width of such an island (dimension E) will vary from a minimum of ten feet to a maximum of thirteen feet, the wall fixtures over-all being half of this dimension in depth.

TABLES FOR DRY GOODS AND ACCESSORIES.

The standard display table recommended by the Wholesale Dry Goods Institute is 30"-32" x 7' 0". These sizes are recommended because they are adaptable to a varied island arrangement. The table of 30" width allows slightly more room in which the clerk operates. The Institute favors the table with an open back, sliding door front and removable rub rail (sometimes called bargain-rail) because it can be used for displaying any type of merchandise and can be used either in the island arrangement or with tables placed flush against the wall (Grant Stores principle).

Two types of glass table dividers are procurable—bulb edge glass and crystal edge glass. Dividers are kept in place by use of metal clips.



EQUIPMENT FOR STORES

REPLACE EXISTING WOOD COUNTERS AND SHOW CASES WITH NEW AND SANITARY EQUIPMENT.
Enameled steel; white or pastel shades. Full salvage value.

INSTALL COMPACT LOCKERS FOR STORAGE OF GARMENTS FOR CLERKS AND FOR STORAGE OF OFFICE SUNDRIES.

HAVE ALL EQUIPMENT IN STORE CONFORM AS TO FINISH AND COLOR.

INSTALL CASES WITH BUILT-IN REFRIGERATION.
For meats, fish, fruits and vegetables.

ELIMINATE ALL UNNECESSARY PROJECTING SURFACES, MOLDINGS, ETC.

HEATING AND PLUMBING

CONVERT RADIATING HEATING INTO CONVECTION SYSTEM WITH BUILT-IN CABINETS.

INSTALL HOT WATER HEATING SYSTEM.
Coal, gas or electric.

ADD FORCED CIRCULATION TO AN OLD WARM AIR SYSTEM.
Silent electric blower.

INSTALL AUTOMATIC FEED SYSTEM OR OIL BURNER.
Silent oil burner; gas or electric ignition.

REPAIR OR REPLACE BOILER WITH MORE EFFICIENT TYPE.
Flush enamel insulated casing; automatic damper; fuel economy; ample fuel capacity; convenient clean-out.

INSULATE BOILER.
Asbestos-cement coats; magnesia blocks; asbestos felt.

REPAIR INSULATION OF HEATING PIPES.
Corrugated asbestos paper; asbestos felt.

FIREPROOF WALLS AND CEILING OF HEATER ROOM.
Asbestos-cement board; sheet metal; stucco on metal lath.

ADD NEW RADIATORS OR REPLACE OLD ONES.
Re-estimate amount of radiation with consideration of exposure, window area, wall insulation.

INSTALL CENTRAL OR INDEPENDENT AIR CONDITIONING.

REPLACE CORRODED PIPING WITH MODERN, DURABLE TYPE.
Copper or brass pipe; flexible copper tubing.

COMBINATION LOCKER AND STORAGE CABINET. 36" x 18" x 78". DOORS LATCH SECURELY AT TOP, CENTER AND BOTTOM. ALL-STEEL EQUIPMENT COMPANY.

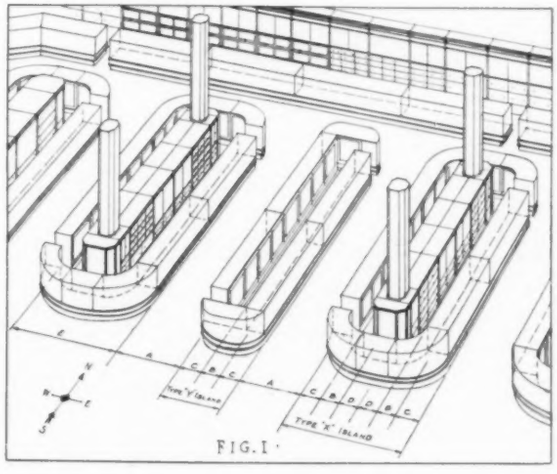


FIG. I

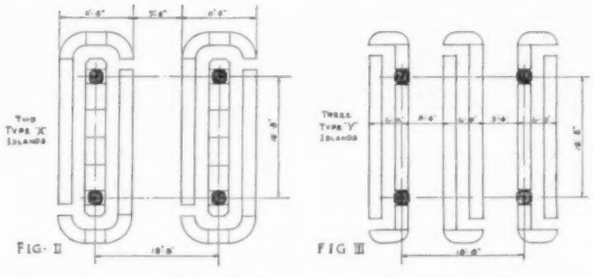


FIG. II FIG III

FIG. I, TYPICAL SCHEME OF FIRST FLOOR FIXTURES FOR A DEPARTMENT STORE. FIGS. II AND III, PLANS OF FIXTURES SHOWING RELATION TO COLUMN SPACING. GRAND RAPIDS STORE EQUIPMENT CORP.

Hedrich-Blessing

WIDEN'S BAKERY, CHICAGO, ILLINOIS.
GORDON S. GUNDLING, DESIGNER.

GENERAL COLOR SCHEME OF THE INTERIOR: CANARY YELLOW AND WHITE TRIMMED WITH CHARTREUSE GREEN AND BLACK; LINOLEUM ON FLOORS IS IVORY AND GREEN; THE UPHOLSTERY SEAT IS COVERED IN AN IVORY SHADE. SPILLED RING LIGHTING WAS USED FOR ILLUMINATION OF ALL OF THE CASES. A UNIT HEATER WAS SUBSTITUTED FOR DIRECT RADIATION.

STORE LIGHTING

PREPARE PLAN FOR LIGHTING WITH ASSISTANCE OF COMPETENT ILLUMINATION ENGINEER.

INSTALL CONTROLLED DIRECT LIGHTING.

Level of illumination as high as 50-foot candles is justified in the area near the entrance. This high intensity need not be carried out throughout the store. Most stores require illumination on vertical surfaces rather than horizontal.

ARRANGE LIGHTING EQUIPMENT WITH DIRECT REFERENCE TO THE LINES OF DISPLAY ON EACH SIDE OF STORE AND LINES OF DISPLAY EQUIPMENT DOWN THE CENTER OF THE STORE.

Two rows of units preferred, parallel to sides of the store, primarily illuminating the display fixtures and their contents on their respective sides. Where central aisles occur, the lighting units can be arranged over the aisles to spread their light on the display fixtures and merchandise on each side.

PROVIDE ADEQUATE LIGHTING AT BACK OF STORE.

At least 20-foot candles.

INCREASE UTILIZATION OF DAYLIGHT.

Skylights for ventilation and lighting.

PROVIDE ADEQUATE ILLUMINATION, INCLUDING A GREATER USE OF DAYLGHT.

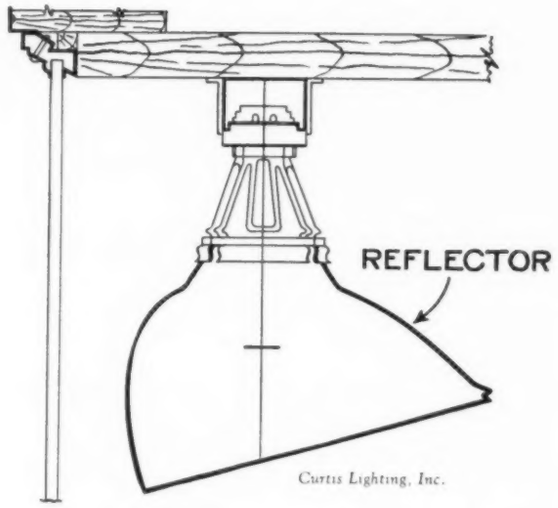
Illumination on light colored displays should be above 30-foot candles and on dark colored displays above 100-foot candles. However, competition by neighboring windows is usually the governing factor.

REPLACE ANTIQUATED LIGHTING OF SHOW WINDOWS BY IMPROVED TYPES OF EQUIPMENT.

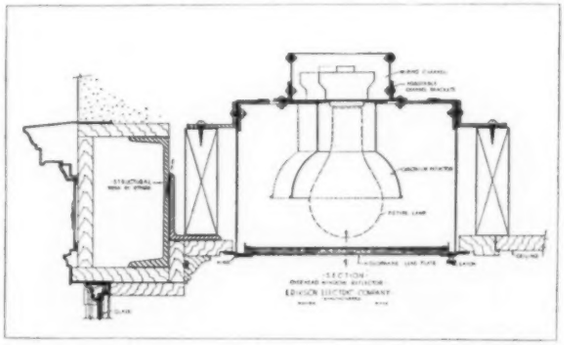
Reflector spacing, 12 to 15 inches; 150-200 wattage for lamps. In general it is better to use many reflectors and smaller lamps than the reverse practice. Light source concealed from spectators; deep windows require light thrown at higher angles to compensate for their greater depth; dark background requires more light than one trimmed in black. Drug stores require vertical illumination; furniture stores, horizontal; stores with spread display all over the window need uniform illumination.

USE FOOTLIGHTS TO SUPPLEMENT OVERHEAD LIGHTING.

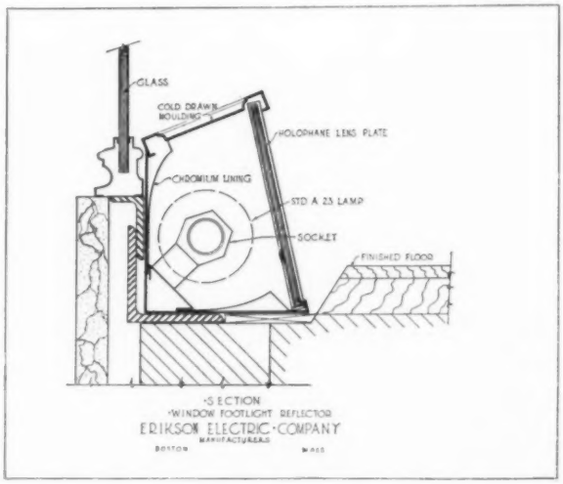
The wattage should be not more than one-third and preferably one-fourth that of overhead lighting per running foot.



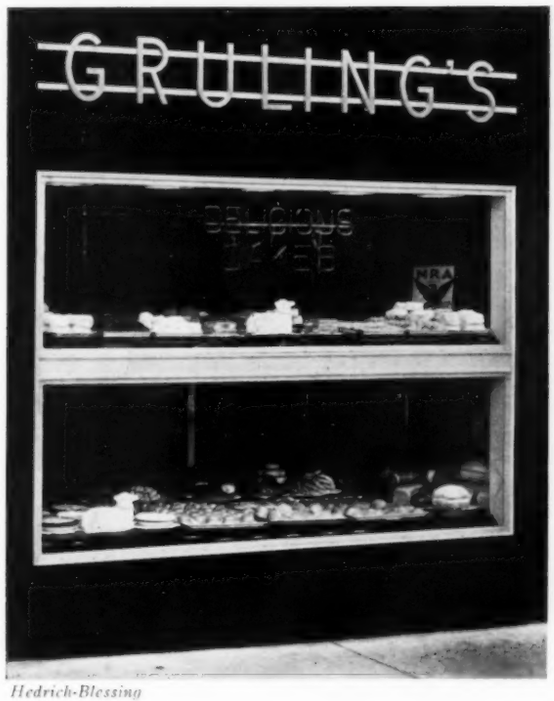
REFLECTOR FOR SHOW CASE LIGHTING. THIS TYPE OF REFLECTOR IS DESIGNED TO ENTIRELY CONCEAL THE LAMP, BOTH FROM THE CUSTOMER AND CLERK, AND DOES NOT OBSTRUCT VIEW OF MERCHANDISE.



OVERHEAD LIGHTING EQUIPMENT. CONTINUOUS HOUSING CONTAINS THE REFLECTOR AND LENS EQUIPMENT. PRISMATIC LENS GLASS AT BOTTOM AFFORDS EFFICIENT LIGHT UTILIZATION AND PREVENTS GLARE. NO VALANCE REQUIRED.



FOOTLIGHT REFLECTOR FOR WINDOWS, USED FOR SPECTACULAR EFFECTS BY EMPHASIZING CERTAIN OBJECTS IN CONTRAST WITH THEIR SURROUNDINGS.



Hedrich-Blessing

STORE LIGHTING

INSTALL COLOR LIGHTING BY AUXILIARY EQUIPMENT.

More economical than by use of screens on main equipment.

ILLUMINATE PARKING AREA.

Floodlight on steel standards or from roof; neon tube lighting can be used to direct traffic. Automatic time switches and photo-electric cell control.

ADD BURGLAR ALARM SYSTEM.

Alarm sounded when circuit is broken by intruder; photo-electric cell.

INSTALL FIRE ALARM SYSTEM.

PROVIDE NEW POWER LINE.

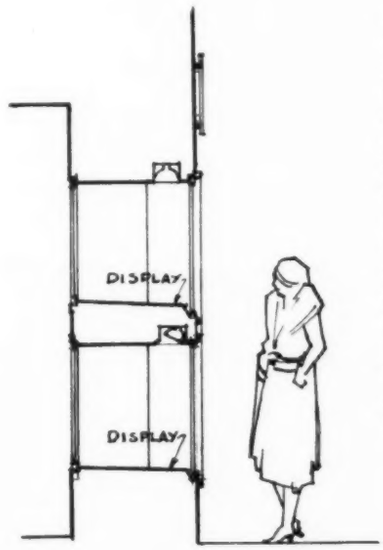
Consult local utility company for its requirements.

INSTALL SPECIAL OUTLETS FOR

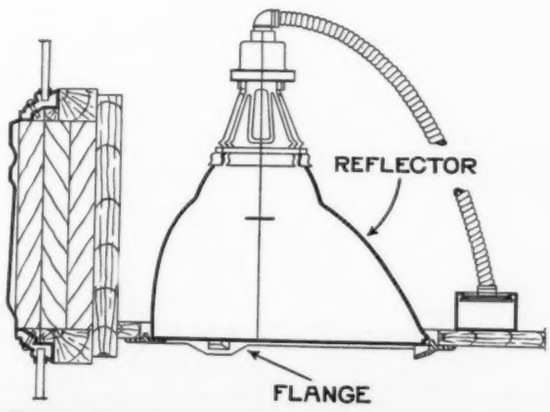
Fans, ventilators, supplementary lighting.

INSTALL LIGHTING OF HIGH INTENSITY TO REDUCE GLARE OF SUN.

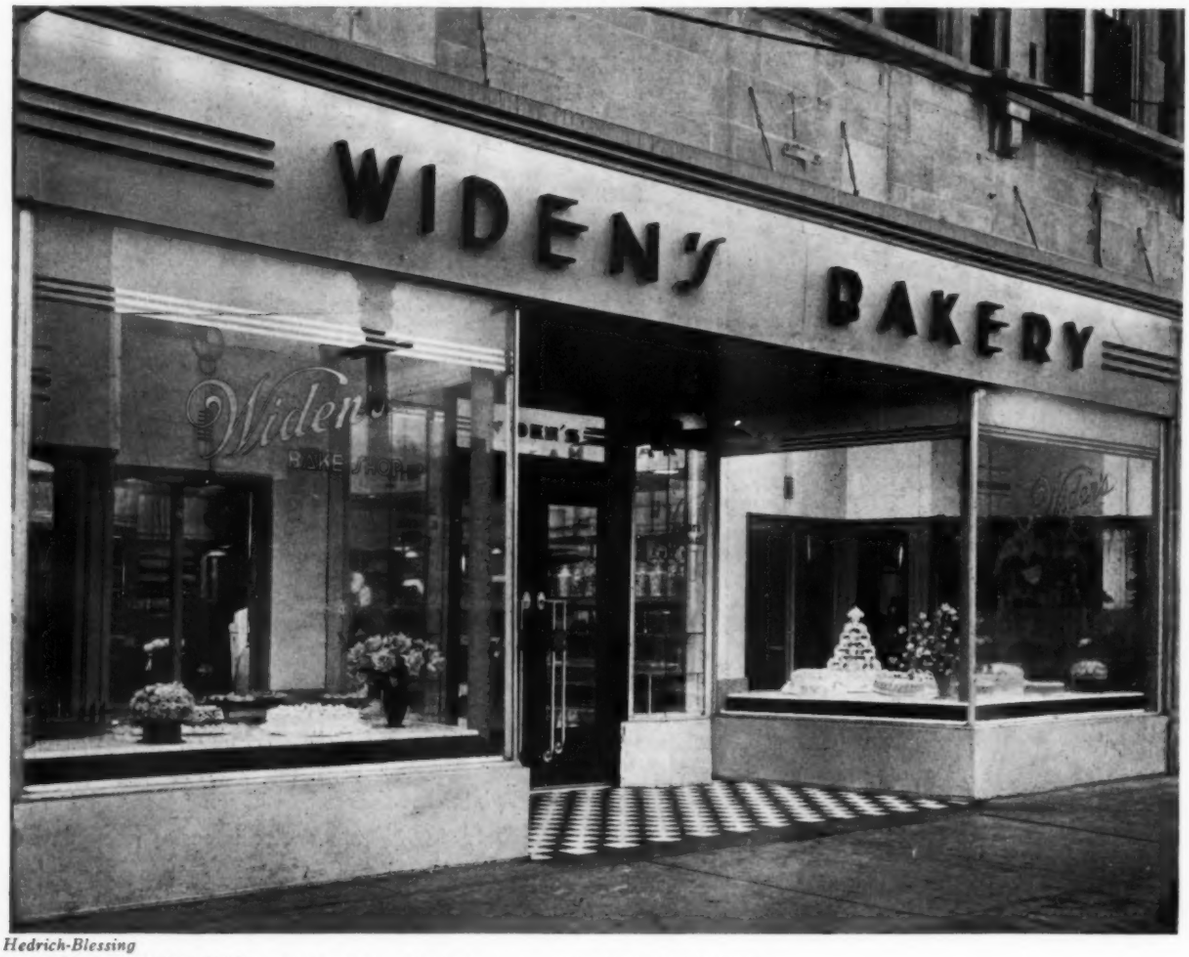
Polished plate glass. Separate circuits; superlighting of from 200 to 1,000-foot candles intensity is employed to overcome daylight reflections; 500 watts per running foot of show window is recommended.



DOUBLE-TIER SHOW WINDOW SUITED TO DISPLAY FOR BAKERY, DELICATESSEN AND OF STATIONERY, NOTIONS. BELOW: STANDARD REFLECTOR FOR HEAD OF SHOW WINDOW. REFLECTORS ARE OFTEN INSTALLED ON TWO CIRCUITS SO AS TO ATTAIN TWO INTENSITIES.



BELOW:
A REMODELED HOTEL IN WHICH SHOW WINDOW IS LIGHTED AT APPROXIMATELY 8-FOOT HEIGHT. THERE IS ALSO OVERHEAD LIGHTING, COUNTERSUNK IN OVERHANG OF CORNICE. F. BECKER AND E. KUTZNER, ARCHITECTS.



Hedrich-Blessing

REMODELED BAKERY SHOP, CHICAGO. GORDON S. GUNDLING, DESIGNER. THE VESTIBULE WAS SHORTENED, BRINGING DOORS CLOSER TO STORE. ON EITHER SIDE OF THE VESTIBULE THERE IS A FEATURE CASE IN WHICH "DAILY SPECIALS" ARE PUT.

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Photograph by Hedrich-Blessing Studio

SALLY FROCK SHOP IN KANSAS CITY, MISSOURI

SOBEL AND DRIELSMA, ARCHITECTS

The store front is a frame of Carrara glass held in place by aluminum supports. The bulkhead facing as well as the grilles at the top of the plate glass are of sheet aluminum. The ribbon aluminum sign in the middle of the vestibule has a backing of flashed opal glass. The simple plaster ceiling of the vestibule is designed so as not to detract from the display windows. The plaster adjoining the mirrors is divided horizontally into several sections by solid brass stripping on the same contour as the wall itself. The entrance doors are of wood covered with sheet aluminum; the hardware is aluminum tubing. The floor is of terrazzo in simple design in three colors. The openings to the store have only Venetian blinds matching the decoration in the window space. The window lighting consists of reflectors concealed in the ceiling with concentric louvers on the bottom in order to prevent glare.

FELTMAN & CURME STORE EVANSTON ILLINOIS

KOENIGSBERG & WEISFELD ARCHITECTS

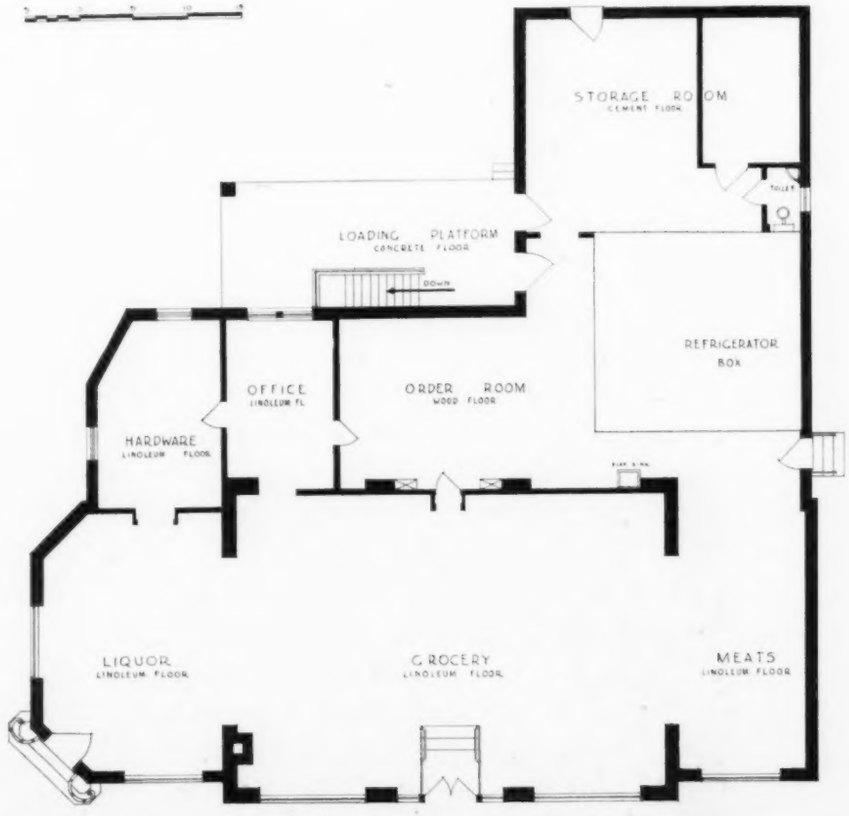
Photographs by Hedrick-Blessing Studio

A cast iron column in a corner of the building was removed in remodeling in order to obtain more window space. The store is 19′ wide. Above the show windows is a Carrara glass spandrel: the sign is cast aluminum, 2′ 6″ high and 6″ deep. The backing for the show windows is light in tone in order to display the merchandise effectively. The interior is designed to focus attention on the hosiery department. A canopy over the hose and bag section has, on its underside, flesh lights with opal glass directing a soft light on the counter. All trimmings and the frames of all lighting fixtures are chromium.

Photograph by Cole and Co.

HINTELMANN STORE IN RUMSON, NEW JERSEY

MYERS AND SHANLEY, ARCHITECTS



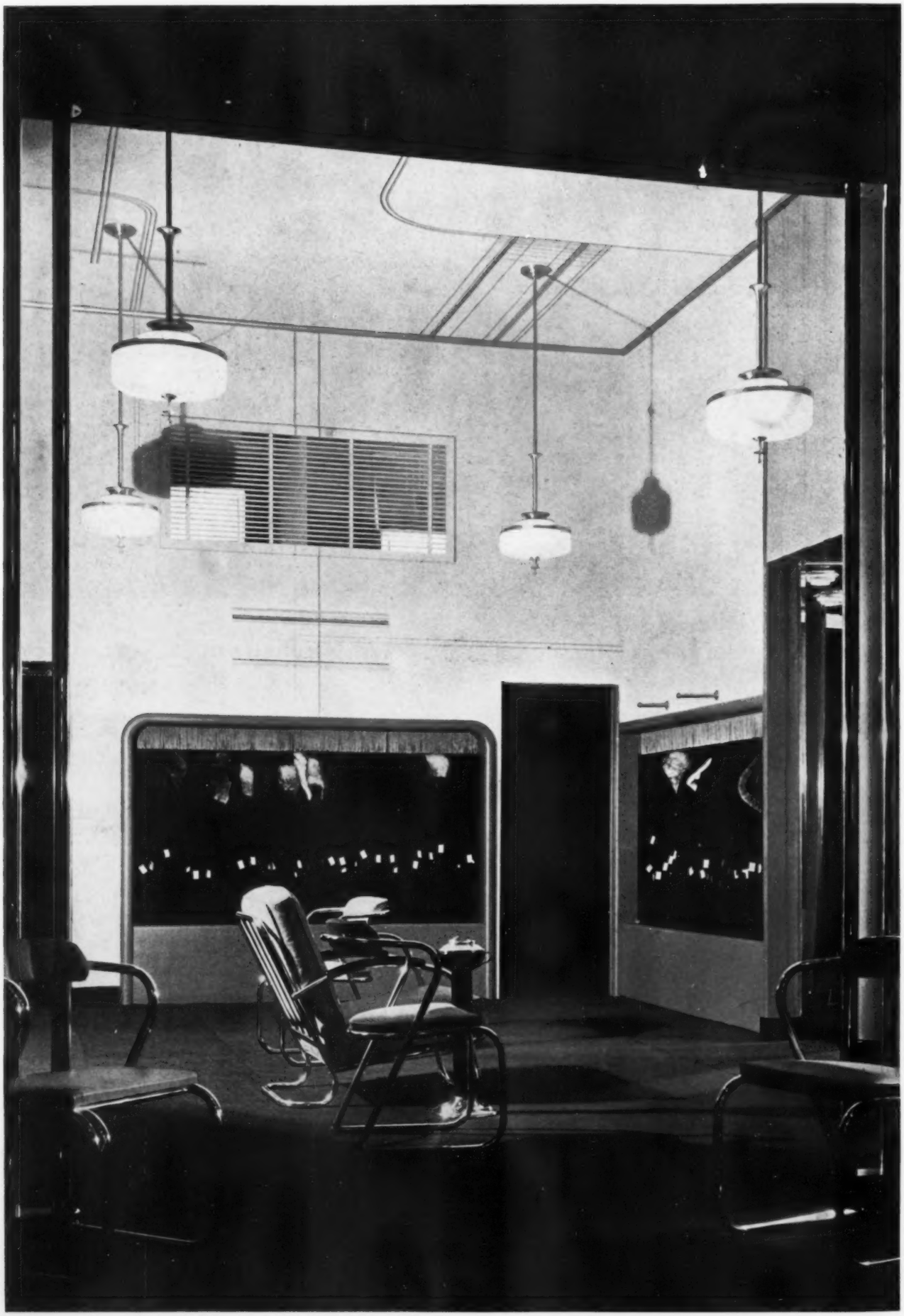
The store is of brick veneer construction with exterior walls whitewashed. The shingled roof is weathered gray. The parapet copings, the lettering, and the wood trim are painted black. The awnings and shutters are blue. An important feature of the plan is the order room, which is apart from the main part of the store. Here, all orders received by telephone or from visiting customers are made up. This prevents the cluttering and disorder which the order end of the business usually causes. The cashier's booth and the business office are located so that they control the various departments and the order room as well as the landing stage in the rear of the store where trucks are loaded.

HINTELMANN STORE IN RUMSON, NEW JERSEY

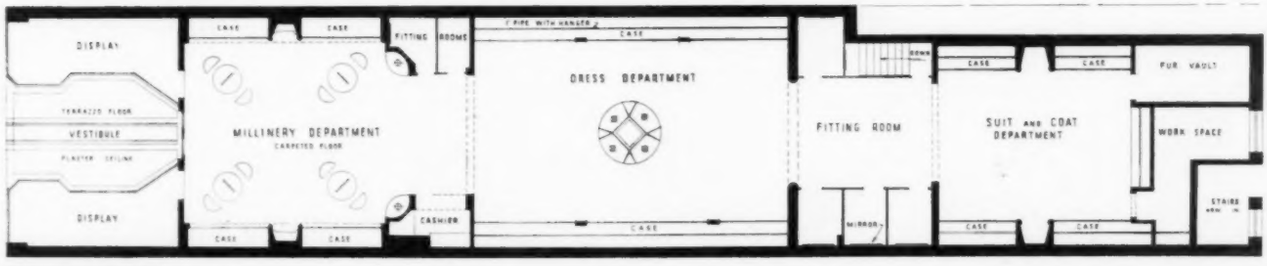
The store has four distinct departments: (1) liquor department; (2) vegetable and grocery department; (3) meat department; (4) hardware department. • In the liquor department the woodwork is stained and waxed a rich brown; counters, shelving and walls are covered with a dark blue linoleum and the shelving is blue, trimmed with white metal bands. In the meat department the walls and counters are covered with white linoleum which is trimmed with white metal strips; black silhouetted figures are inlaid in the walls. • A large meat box with freezer, also a separate vegetable box and butter and egg box are all cooled by an ammonia refrigerating system. The water for circulating in this system is obtained from a well under the building. This was done for economy in operation. A two-pipe vacuum heating system is augmented by a unit blower. The blower fan is also used as a means of circulating the air in the store during the hot summer months. • To the rear of the ice box department is a large storage room. This is in addition to storage lockers in the basement. The fenced area at the rear of the store, where the empty crates and boxes may be accumulated out of sight, is a very necessary arrangement because the adjoining properties are all summer homes.

MYERS AND SHANLEY, ARCHITECTS

Photographs by Cole and Co.



Photographs by Hedrich-Blessing Studio

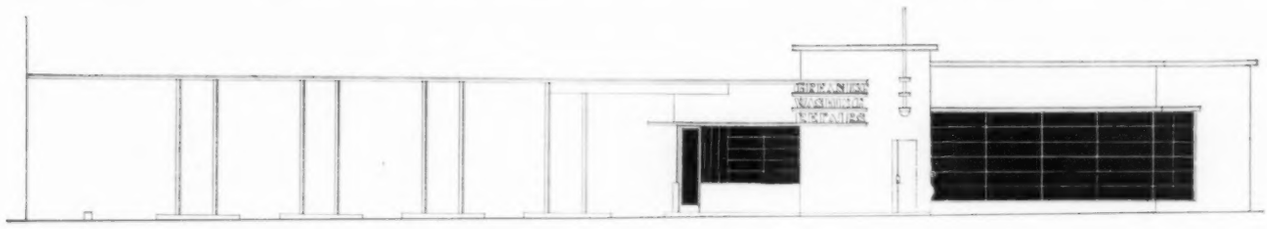


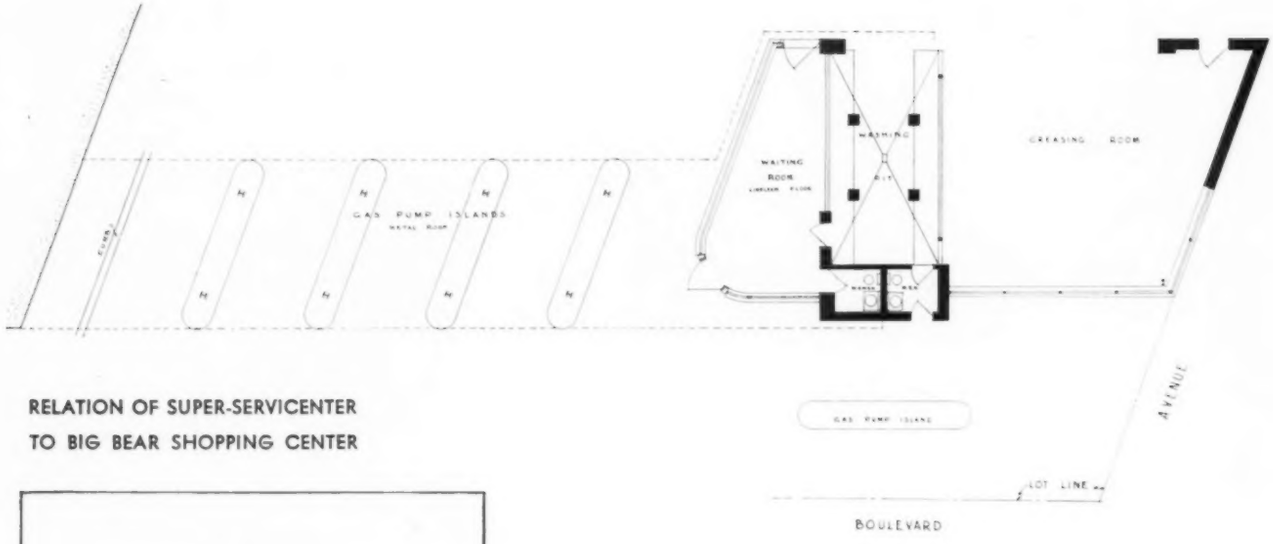
FIRST FLOOR PLAN

BARNETT'S, INC. APPAREL SHOP IN GARY, INDIANA

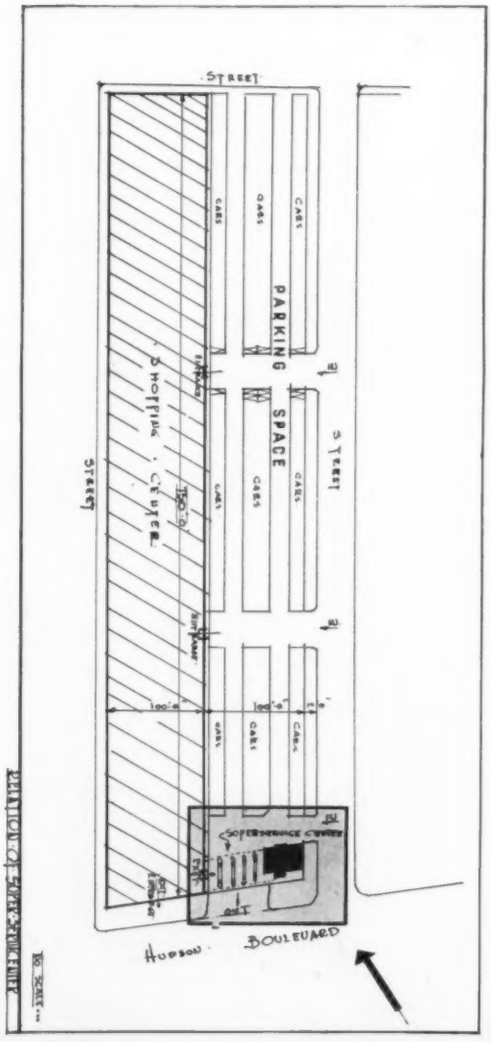
GORDON S. GUNDLING, DESIGNER

Ivory and black Carrara glass are used on this store front. The sign is also black and ivory. • The millinery department is decorated in shades of pastel pink and ivory. The stripping is of deep vermilion. The cases are burgundy red, the furniture canary yellow and chrome. • Overhead is indirect lighting. To gain additional wall space, triplicate mirrors are grouped in the center of the dress salon. The top of this feature has a cornice for indirect lighting of the ceiling. The colors throughout the dress salon are peach and salmon with modern stripping in contrasting shades. The chrome furniture is upholstered in chartreuse green. All carpeting is burgundy red.





RELATION OF SUPER-SERVICENTER TO BIG BEAR SHOPPING CENTER



''SUPER-SERVICENTER'' FOR JERSEY CITY SHOPPING CENTER

B. SUMNER GRUZEN, ARCHITECT

Large numbers of shoppers come in automobiles to such shopping centers as the Big Bear Market. The design problem consequently includes consideration of means of assisting the passage of shoppers with packages to their cars. In this case, since it was impractical to cover the parking area, a combination waiting room and marquee was developed as shown by the drawings. Gasoline sales, greasing, washing and repairing are accessory services evolving from the primary requirements; it is expected that shoppers will use the opportunity to have their cars greased and washed while shopping. All cars enter as shown, and exit through the Super-Servicenter. The shopper stays in the waiting room until the car is delivered from the parking lot. The station is to be white with colored canopies. Supporting columns are to be H-forms of stainless steel. Sign lettering is to be black, silhouetted against lights in back.

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Made in 5 Sizes
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600 gallons per hour
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Made in 2 Sizes

	Max. Cap. gal. per hr.	Retail Price
1R	720	$25.00
2R	1240	40.00

MODEL L
Made in 3 Sizes

	Max. Cap. gal. per hr.	Retail Price
3L	1650	$ 55.00
4L	2400	80.00
5L	3200	110.00

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AN IMPORTANT AND TIMELY CONTRIBUTION TO THE LITERATURE OF PRESENT-DAY ARCHITECTURE—A BOOK THAT WILL BE INVALUABLE TO EVERY ARCHITECT, DESIGNER AND STUDENT OF PROGRESS IN RESIDENTIAL BUILDING

THE MODERN HOUSE

By F. R. S. YORKE
A.R.I.B.A.

The Architectural Record is pleased to be able to offer this illuminating and informative book, recently published in England and reflecting the latest and most successful practice in the design and construction of Modern Dwellings not only in the United States and England but in France, Germany, Holland, Belgium and other European Countries.

The point of view of the author, an associate of the Royal Institute of British Architects, is expressed in this paragraph:

> "We can no longer afford to build the house that makes bad use of space, or to employ ornamental devices to counteract weaknesses in basic design. Anything that is for use must be, above all else, efficient, and the design of the modern house is based on the principle of utility—it is fundamentally a thing for use; its design, as such, naturally becomes more complex as the standard of living improves, if freedom is to be retained. It is essentially progressive, and the twentieth-century habitation presents a problem that can only be solved in the light of the needs and resources of the present age."

Mr. Yorke has painstakingly collected the most successful examples of advanced house design from the leaders in the movement. His book gives a clear, comprehensive and extremely useful picture of the problems of Modern House Design and of their solutions. It is filled with practical information on plan, design, methods of construction, materials and equipment. It is a handsome volume of 200 pages, 7½ by 10, illustrated with approximately 500 photographs, plans and constructional details. It outlines the requirements to be met in the new type of home and discusses all its component parts—plan, wall, window and roof. One chapter deals with Experimental and Prefabricated Houses. An entire section of over one hundred pages is devoted to the presentation of typical houses erected from 1924 to 1934.

Believing that "The Modern House" is certain to take its place as a standard text in this country as well as abroad, The Architectural Record has arranged to handle its distribution in America. The price, including postage within the United States, is $6 per copy.

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Enclosed is $6 for which send me a copy of THE MODERN HOUSE, by F. R. S. YORKE, A.R.I.B.A.

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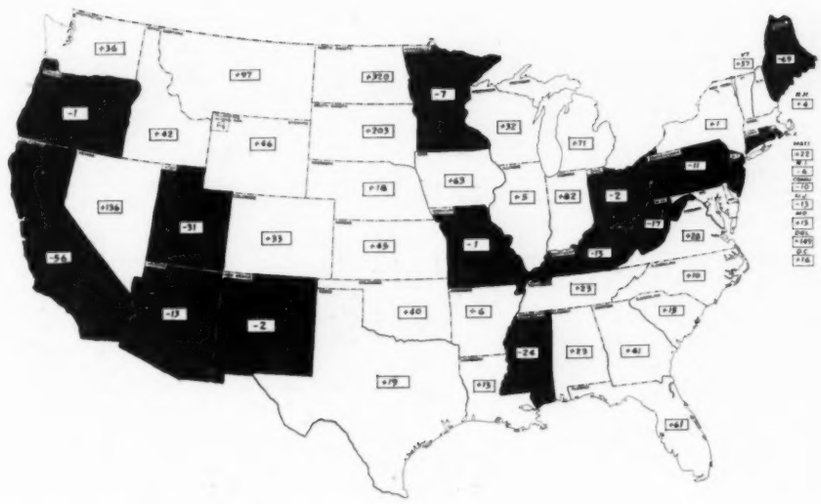
BUILDING TRENDS AND OUTLOOK

BY L. SETH SCHNITMAN
CHIEF STATISTICIAN
F. W. DODGE CORPORATION



BUILDING DURING 12 MONTHS — November, 1933 - October, 1934, INCLUSIVE. Corresponding twelve months ended October, 1933, taken as base. SHADED AREA: BELOW BASE. UNSHADED AREA: ABOVE BASE. Figures denote percentage change from base. Floor space for new building contracts, 37 states east of the Rocky Mountains. Permit valuations for Rocky Mountain and Pacific coast states. Map, copyright American Map Co., N. Y. Authorized reproduction No. 5025.

MATERIAL PRICE MEASURING ROD

F. W. DODGE CORPORATION
COMPOSITE PRICES

MATERIAL	This Month	Month Ago	Year Ago
Portland Cement	$2.20	$2.25	$2.20
Common Brick	14.80	14.89	12.34
Structural Steel	1.65	1.65	1.65
Lumber	16.25	16.25	16.37

The prices in this tabulation enable one to visualize at a glance the main trend of the material market. Their significance does not extend beyond that point, and the explanation should be read carefully. Prices given in this comparison are composite and do not in all cases refer to one item. For instance, the price of structural steel is the composite of prices of shapes and plates f.o.b. Pittsburgh; the price of lumber is a composite of five items of Southern pine and five items of Douglas fir f.o.b. mill; the price of cement is a composite of prices in fourteen different cities per barrel, carload lots, to contractors; price of brick is composite in fourteen cities per M. delivered on the job.

CONSTRUCTION SHOWS IMPORTANT GAINS

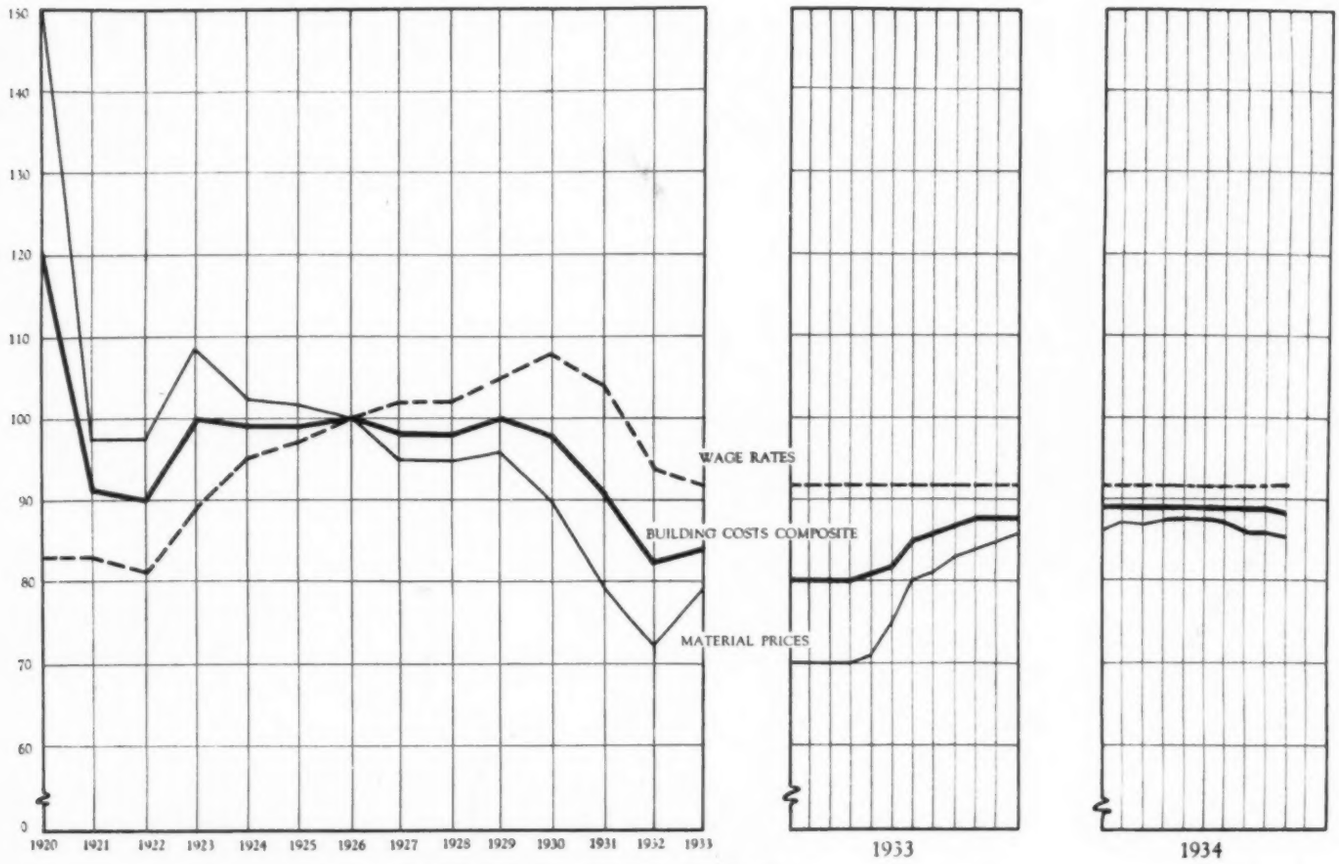
The October contract total for all classes of construction was larger than for any month since March; the total of $135,524,800 for the 37 Eastern States compares with only $110,151,200 for September and $145,367,200 for October, 1933. Gains in construction contracts as compared with the totals for September were shown for each of the 13 Dodge districts, except upstate New York where a relatively unimportant decline was reported. Increases in awards as contrasted with October, 1933, were recorded in the New England, metropolitan New York, Middle Atlantic, Chicago, southern Michigan, St. Louis and Kansas City territories; losses were suffered in the upstate New York, Pittsburgh, Southeastern, Central Northwest, New Orleans and Texas territories.

For the elapsed ten months of 1934 construction awards reached the total of $1,338,986,100 in the 37 Eastern States as a whole; this is in sharp contrast with the total of only $886,158,300 for the corresponding ten months of 1933. Cumulative gains over 1933 were distributed as follows: 248 million dollars in public works; 149 millions in nonresidential buildings; 43 millions in public utilities; and 12 millions in residential buildings.

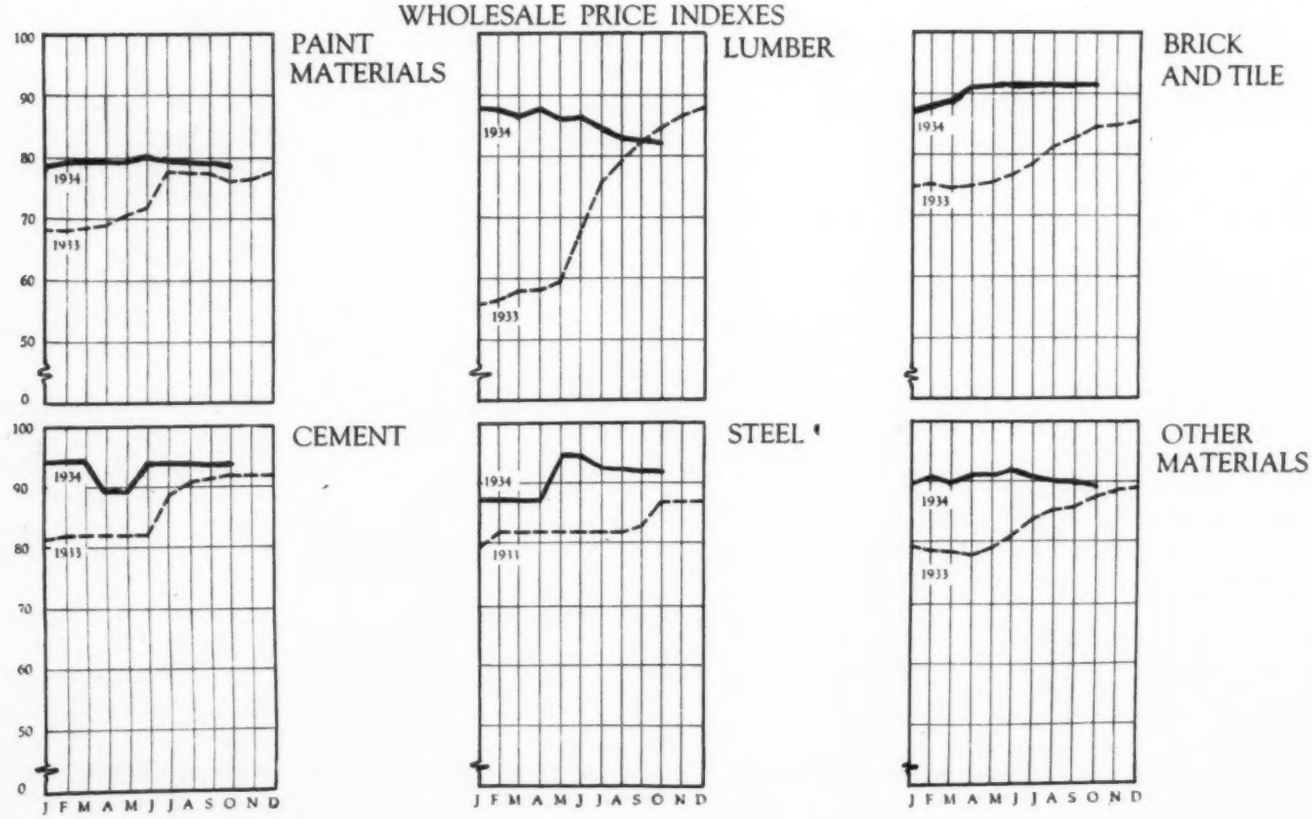
The October contract record disclosed good gains in the residential figures, as apart from other classes of construction; the residential total of $26,299,800 reported for October was almost 50 per cent greater than the September volume and exceeded the residential total reported for October, 1933, by more than 20 per cent.

Residential contract increases were reported in October over September in each of the 13 Dodge districts with the exception of the New England, the Chicago, and the southern Michigan areas. Gains in residential contracts over October, 1933, totals were recorded for each major area except New England, upstate New York, and Texas.

Contemplated construction in the 37 Eastern States recorded during October totaled $237,658,500, as against only $149,885,100 for September and $886,627,300 for October, 1933, when planning under the PWA program was gaining its stride. Increased planning for construction jobs in October, as contrasted with the preceding month, was shown in each of the Dodge areas except the upstate New York, Middle Atlantic and Central Northwest districts.



WHOLESALE PRICE INDEXES



1926 MONTHLY AVERAGE = 100

MATERIAL PRICES, BUILDING WAGE RATES AND BUILDING COSTS COMPARED

In Bathroom Design . . .

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CARRARA

The modern structural glass

A product of

PITTSBURGH
PLATE GLASS COMPANY

Here is an example of the possibilities offered by Carrara in bathroom design. White Carrara wainscoting and full White Carrara Walls in the tub recess give the room unusual life and sparkle. Base trim of Gray Carrara is used. And the upper walls and ceiling are finished in harmonious shades of Wallhide, the "Vitolized Oil" Paint.

With WALLS *of* CARRARA

GIVE *New* DISTINCTION TO

THE KITCHENS YOU DESIGN

CARRARA Structural Glass for kitchen walls is a medium which you may rely upon with confidence to give any kitchen you design the individuality, distinction and practical utility you planned for it.

This modern structural glass is outstanding in beauty, with its smooth, polished surfaces; its reflectivity; its harmonious colors . . . Ivory, Jade, Gray, Black and White. Using Carrara, you can obtain effects impossible with any other wall material, because it is so versatile, because it can be set in such a great variety of shapes, sizes, patterns and color schemes, because it can be decorated in so many attractive ways.

And the kitchen with walls of Carrara is practical, too. For Carrara retains its original beauty year after year. The glass does not craze, check, stain, absorb odors, or fade. Grease and grime cannot penetrate its close knit surfaces. And it is unusually easy to keep clean, unusually easy to install.

Why not specify Carrara Walls in the next kitchen you design? Find out how this material can assist you in creating original and distinctive rooms.

CARRARA

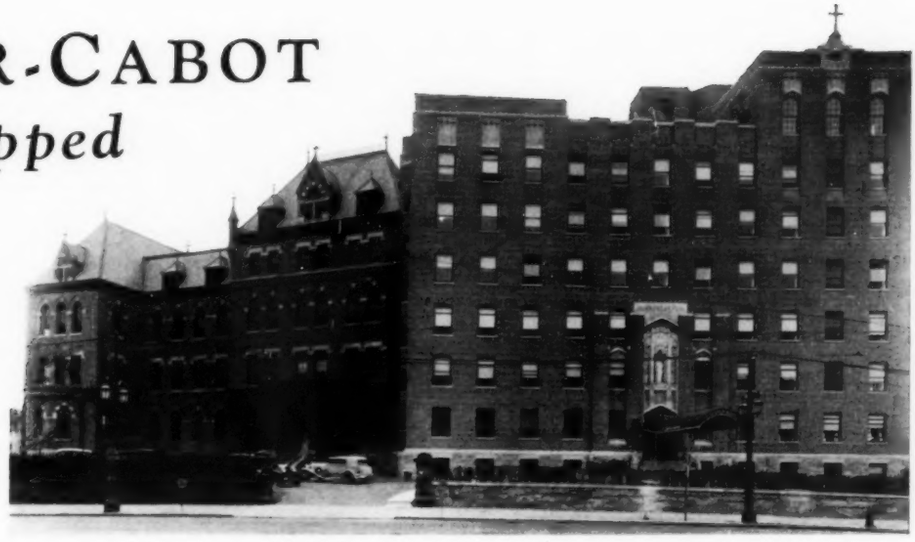
The modern structural glass

A product of

PITTSBURGH
PLATE GLASS COMPANY

An illustration of how Carrara Walls can assist you in creating unusually attractive kitchens. The Ivory Carrara wainscoting, with base trim of Black Carrara, make for greater beauty, sanitation and ease of cleaning. Upper walls are finished in Suntone Wallhide, the "Vitolized Oil" Paint; ceiling in a contrasting shade of Wallhide; table and cabinets in appropriate shades of Waterspar Quick-Drying Enamel.

HOLTZER-CABOT
Equipped



Architect
WILLIAM H. JONES
Yonkers, N. Y.

Consulting Electrical Engineer
A. S. LAU
New York City

Electrical Contractors
L. MAYER ELECTRIC CORP.
Yonkers, N. Y.

ST. JOSEPH'S HOSPITAL, YONKERS, N. Y.

Hospital architects and electrical engineers can't afford to take chances when it comes to specifying signaling equipment. The cherished reputation of the institution depends upon the quick and accurate handling of all emergencies.

The St. Joseph's Hospital, Yonkers, N. Y., equipped with Holzter-Cabot Nurses' Call—Doctors' In & Out—Clinic Call—City Connected Fire Alarm and miscellaneous equipment. is one hospital of many thousands that specify Holtzer-Cabot signaling systems because of their time-proven dependability. Holtzer-Cabot engineers have specialized for over fifty-seven years in the design and development of signaling systems and will gladly assist you with any signaling problem you may have.

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PIONEERS IN HOSPITAL SIGNALING SYSTEMS

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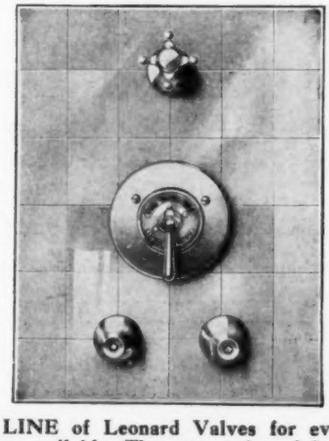
THE ARCHITECTURAL RECORD
119 West 40th Street, New York, N. Y.

MIXING **LEONARD** VALVES
THERMOSTATIC



A NEW LINE of Leonard Valves for every type of house is now available. The new series of Leonard Mixing Valves for Shower, Tub, and other Hot Water outlets, are low in cost—also upkeep—and are simple and rugged in construction for both exposed and concealed piping. Capacity range from 5 to 15 gallons of water per minute. They are small and will fit into any 3" partition. All replacements are made from the front.

Literature giving full installation dimensions will be sent upon request.

IN SWEET'S CATALOGUES
Manufactured by
LEONARD-ROOKE CO.
INCORPORATED
Providence, Rhode Island

WAGE SCALES IN THE BUILDING TRADES

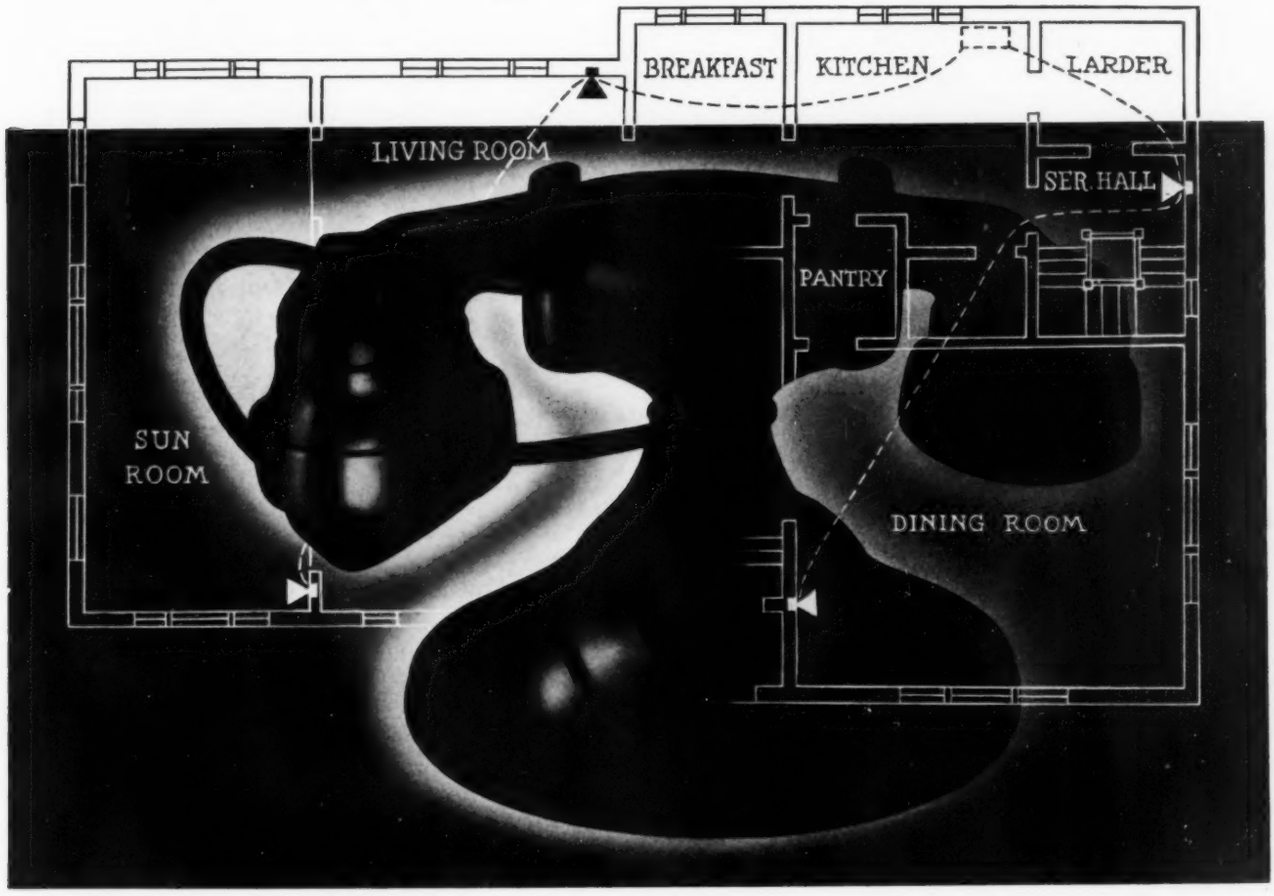
Information Furnished by National Association of Builders Exchanges and Compiled by Division of Statistics and Research, F. W. Dodge Corporation, as of October, 15, 1934

	Asbestos Workers	Bricklayers	Bricklayers Tenders	Carpenters	Cement Finishers	Electricians	Hoisting Engineers	Iron Workers—Ornamental	Iron Workers—Structural	Laborers	Lathers	Painters	Plasterers	Plasterers' Tenders	Plumbers	Roofers—Composition	Roofers—Slate & Tile	Sheet Metal Workers	Steamfitters	Stone Masons	Tile Setters	Tile Setters' Helpers
Akron	$1.00	$1.25	$0.45	$0.70	$0.70	$0.75	$0.70	$0.60	$0.60	$0.40	*$0.87½	$0.65	*$1.00	$0.62½	$0.85	$0 80	$0.80	$0.80	$0 85	*$1 25	*$1 25	*$0.50
Atlanta	1.00	1.25 1.40	‡.30 .45	.70	1.25	.90 1.10	.60 1.00	.35 1.85	1.25	.25 .35	1.00 1.25	.75	1.25	.30 .45	1.25	.80	.80	90 1.00	1 25	1.00 1 25	1.25	.40
Baltimore	1.00	*1.10	1.10	1.00	*1.00	*1.00	*1.50	*1.37½	*1.37½	.40	*1.25	1.00	*1.25		*1.10	.75	.75	*1.12½	*1 10	1.10	1.25	.65
Boston	1.25	*1.30	.70	*1.17½	1.17½	*1.25	1.17½	*1.20	*1.20	.70	*1.50	*1.12¾	1.37½	*.95	*1.25	*1.17½	*1.05	1 17½	*1 25	*1 30	*1.36	*.95
Buffalo	1.00	*1.25		*1.00	1.00	1.12½	1.00	1.12½	1.12½	.40 .50	1.25	*1.00	1.00		1.20	.60	1 00	1.00	*1.20	*1 25	*1.18¾	
Chicago	1.37½	1.50	.82½	‡1.31¼	1.31¼	1.50	1.31¼	1.33⅓	1.35	.82½	*1.50	‡1.33⅓	*1.50	88¾	1.37½	1.37½	1.50	1.37½	1.37½	1.50	1.50	1.00
Cincinnati*	1.15	1.37½	.70	1.20	1.02½	1.25	.80 1.25	1.25	1.25	.45	1.31¼	1.15	1.37½	.70	1.25	1 02½	1.07½	1 07½	1.12½	1.25	1.00	
Cleveland*	1.17½	1.25		1.12½	1.12½	1.37½	1.12½	1.25	1.25	72½	1.25	1.20	1.25		1 25	1.15	1.37½	1.12½	1.25	1.25	1.25	.81¼
Columbus	1.00	1.30	.62½	.80	.80	1.00	1.15	1.25	1.25	.40	1.00	.80	1.00	.62½	1 00	.80	1.00	.80	1.00	.75	1.25	.50
Dayton*	1.25	1.30	.80	1.00	1.15	1.55	1.25	1.35	.50	.50	1.10	1.00	1.20	.80	1.00	.85	1.00	1.00	1.00	1 30		
Denver††	9.00	12.00 *13.00	6.50 7.00	10.00	10.00 11.00	10.00 11.00	10.00	10.00 11.00	10.00 11.00	4.00 5.00	11.00	*10.00	12.00	7.00	11.00	7.00 8.00	7.00 8.00	9.00	9 50	12.00 13.00	10.50	†.62½
Des Moines	1.00	1.50	.90	1.15	1.12½	1.25	1.25	1.00	1.00	.77½	1.43	1.25	1.37½	.90	1.25	1.00	1 00	1.00	1.25	1.50	1 25	.67½
Detroit	1.37½	1.25 max.	.55 .60	.80 1.00	.70 .90	1.25 1.40	.60 1.00	1.00 1.20	1.00 1.25	.50 .55	1.37½	.80 1.00	1.00 1.25	.70 .80	1.00 1.50	.70 .90	.80 1.00	.80 1.00	1.25 1.50	1.25 1 50	1 00 1.25	.80
Duluth	1 00	1.00	50	.80	.80	1.00	.80		1.00	.50	.80	.80	1.00	.70	1.00	.70	1.00	85	1.00	1.00	1.00	1.00
Erie		1.00	45 .50	.80	.80	.90 *1.00	.90	.60 .80	.90	.40	.90	.60 .70	1.00	.40 .50	1.00	.50 .60	.80 .90	.80 .90	*1 00	1.00	80	40 .50
Houston		1.00	.35	.75	.75	1.00	.75	1.00	1 00	35		.62½	1.00	.35	1.00	.75	1.00		1.00	1.00	1.00	
Indianapolis	1.32½	1.62½	.90	1.22½	1.17½	1.50	1.37½	1.45	1.45	.40 .45	1.37½	1.25	1.57½	1.00	1.00	.60 .90	1.27½	1.22½	1.50	1.62½	1.50	.60
Kansas City	.90	1.32½	.80	1.00	1.00	1.00	1.00	1.00	1.00	.60	1.00	1.00	1.06¼	.80	1.00	.92½	.92½	1.00	1.00	1.12½	1 25	.62½
Los Angeles††	10.00	8.00	6.00	7.00	8.00	7.00	8.00	9.00	10.00	4.00	10.00	7.00	9.00	6.00	9.00	7.00	7.00	8.00	10.00	8.00	6.00	†.75
Louisville	1.00	1.25	.62½	1.00	1.00	1.00	1.00	1.00	1.00	.40	1.12½	.95	1.00	.62½	1.12½	.40	.85	.85	1.12½	1.25	1.00	
Memphis	1.00	1.37½	.50	.87½	1.10	1.00	1.12½	.87½	.87½	.40	1.00	1.00	1.25	.50	1.25	.75 1.00	1.12½	1.12½	*1.25	1.37½	1.25	.50
Milwaukee	1.00	1.25	1.25	.92½	1.00	1.25	1.00	1.05	1.05	.60	1.20	1.00	1.20	.80	1.20	1.00	1.00	.92	1.20	1.25	1.25	.80
Minneapolis	1.00	1.00		.80	80	1.00	.80	.90	1.00	.45	.75 .85	.80	1.00	.70	1.00	.70	.70	.80	1.00	1.10	1.00	.65
Nashville		1.00		.60 .75	.50	.75		.60	.75	.40	1.00	.62½	1.10		1.10	60	60	.60	1.10	.50	.75	
New Haven*		1.20	.50 .60	.80 1.06¼	1.20	.80 1.00	1.16¾ 1.27½	1.37½	1.37½	45 .65	1.27½	.80 1.00	1.20	.50 .60	1.06¼		1 50	1.06¼	1.06¼	1.20	1.20	
New Orleans	.65 .80	1.25	.85	.55 .75	1.00	1.25	1.25	1.25	1.25	.35 .50	1.25	.75 .90	1.25	.75	1.00 1.25	.40	90 1.15	.90	1.05 1.25	1.50	1 25	.35
New York City††	11.20	12.00	7.20	11.20	c11.20	11.20	13.20	11.20		6.60	11.20	9.00	12.00	8.50	c12.00	10.28	12.62	11.20	11.20	12.00	11.50	8.50
Oakland	6.40	‡9 00	‡6.00	7.20	8.00	8.05	8.00	11.00	11.00	5.00	7.50	7.00	‡7.50	‡6.60	8.80	6.40	6.40	8.80	9.00	9.00	8.00	5.00
Oklahoma City††	8.00	8.00	4.00	6.00 8.00	8.00	6.00 8.00	8.00	8.00	8.00	3.50	†.80	7.00 8.00	†.80	4.00	†.80	6.00	6.00	8.00			11.00	†.62½
Omaha	1.32½	1.12½	.45	.90	1.00	1.00	1.00	.90	.90	.50	.90	.80	1.20	.80	1.20	.72½	95	1.00	1.20	.90	1.00	.50 .60
Philadelphia	1.00	1.50		1.00	1.05	1.25	1.18½	1.25 1.37½	1.00 1.37½	.40	1.37½	.90	*1.37½		1.20	1.00	1.25	1.25	1.20	1.25	1.12	.75
Pittsburgh	*1.50	*1.50		*1.25		*1.56¼	1.37½ 1.43¾	*1.37½	1.37½	70	*1.50	.87½	*1.50		1.50	*1.25	*1.50	*1.31¼	*1.50	*1.40	1.33¾	.88
Portland, Ore.††	8.00	*9.60	7.20	7.20	*7.20	*8.00	6.40 9.60	6.80	8.80	4.80	*8.80	7.04	*9.60	*7.20	*8.80	7.20	7.20	*8.00	*8.80	*9.60	8.00	7.20
Reading	.80	.80	.60	.80	.80	.80	.80	.80	.90	.40	.90	.63	90	.60	.90	.80	.80	.70	.90	.70	.75-1.15	.50
Richmond	60 .65	1.25		.60	.35 .40	.80		.70	.70	.40	1.00	60	.60		.90	.60	.60	1.00	.90	1.25	1.25	
Rochester	.91	1.25	.55	1.05	*1.25	›1.20	.90	.70-*1.00	.70-1.00	.55	.90	1.05	*1.25	.55	*1.20	*.95	*. 95	1.05	*1.20	*1.25	1.20	.47½
Salt Lake City ††		9.00	5.00	7.20	8.00	1.12½	1.12½	1.12½	1.12½	4.00	1.10 1.25	7.20	1.50	1.10	8.00	7.20	8.00	8.00	8.00	9.00	8.00	4.00
San Antonio††	6.00 10.00	6.00 10.00	2.00 3.00	2.00 7.00	3.00 8.00	3.00 7.00	4.00 7.00	1.75 4.50	5.00 10.00	1.50 2.50	4.00 7.00	3.00 7.00	4.00 8.00	2.00 3.00	5.00 8.00	5.00 6.00	4.00 6.00	3.00 7.00	5.00 8.00	3.50 8.00	4.00 10.00	2.00 3.00
San Francisco	6.40	9.00	7.00	7.20	7.20	9.00	9.00		9.60	5.00	8.00	7.00	8.80	7.50	8.00	8.00	8.00	7.20	8.00		8.00	5.00
Seattle††	8.00	9.60	5.28	7.20	7.20	*8.80	8.00	8.00	8.80	4.75	*8.80	7.20	*9.60	*6.40	*8.80	7.20	7.20	8.00	*8.80	9.60	8.00	
Sioux City	1.00	1.25	.50	1.00	.90	1.00	.80	.90	.90	.50	1.00	1.00	1.25	.60	1.20	.90	.90	.85	1.20	1.25	1.00	.60
St. Louis	1.25	1.50	.87½	1.25	1.31¼	1.50	1.35- 1.47	1.47	1.47	.78¾	1.25	1.25	1.50	1.06¼	1.43¾	1.17½	1.25	1.25	1.43¾	1.25	1.25	.76½
St. Paul	1.00	1.10	.55	.80-.90	.80	1.00	.80	1.00	1.00	.50	1.20	1.00	1.20	.85	1.20	.75	.75	.85	1.20	1.00	1.12½	
Washington, D.C.	*1.50	1.75	.50 .75	*1.37½	1.25	*1.65	*1.37½	*1.65	*1.65	.75	*1.62½	*1.37	*1.75	*.75	*1.50	*1.37½	*1.37½	*1.50	*1.50	*1.25	*1.50	.75
Wichita	.60	.75 1.25	.25 .40	.40 .75	.40 1.00	.50 .87½	.30 .75	.40 1.00	.40 1.00	.20 .40	.50 1.25	.50 .87½	.60 1.25	.25 .50	1.00	50 1.00	.50 1.00	.50 1.00	.75 1.12½	.75 1.25	.50 1.00	.25 .40
Youngstown††	*1.00	1.25	.60	.75-1.00	1.12½	1.00	1.12½	1.25	1.25	.40	1.00	1.00	1.25	.75	1.00	1.00	1.00	1.00	1.00	1.25	1.25	.81¼

NOTE.—Where two figures are shown they are the minimum and maximum. All figures are for hour rates except as indicated. ††8-hour day. ‡6-hour day. †Rate per hour. *On 5-day week basis. cCorrection. Asterisk after city indicates all trades on five-day week basis.

ABOVE DATA ARE WAGE SCALES AND DO NOT NECESSARILY INDICATE ACTUAL WAGE RATES BEING PAID IN THE RESPECTIVE TRADES.

"Providing better homes for the people of the nation"



THE national drive to stimulate remodeling and new construction will provide "better homes for the people."

Built-in telephone conduit contributes generously to the success of these residence projects. It permits telephone outlets to be located at convenient points throughout the house. It conceals wiring that otherwise would be exposed. It guards against certain types of service interruptions. And it costs very little.

Certain outlets can be equipped for immediate use and others tapped at any future time, as they are needed, without trouble. Through the years, adequate telephone arrangements will save time and steps and add to the comfort and convenience of the household.

Your local telephone company is always glad to work with you in developing conduit layouts. There is no charge, of course. Just call the Business Office and ask for "Architects' and Builders' Service."

IN REMODELING—

IN NEW CONSTRUCTION—

REMEMBER TELEPHONE CONDUIT

NEW MATERIALS & EQUIPMENT

NEW CATALOGS

RESEARCH REPORTS

MANUFACTURERS' LITERATURE

Architects are invited to use the coupon on this page as a convenient means of obtaining manufacturers' publications describing in detail the products and materials mentioned

M 1
NORBIDE

Norbide, a laboratory-produced material described as the hardest material ever produced by man for commercial use, is the subject of a booklet produced by the Norton Co. of Worcester, Mass. According to the manufacturer's statement Norbide is second in hardness only to diamond dust as an abrasive. In molded form Norbide is said to find application wherever an extremely tough, smooth, wear-resisting material is required. Apparently the material has unlimited potential applications in a wide variety of industries. The booklet in which this information is given is well illustrated and is interesting reading.

M 2
NEW GAUGE STANDARDIZATION ANNOUNCED BY THE LINOLEUM INDUSTRY

Under the new gauge standards, all types of linoleum (Battleship, Plain, Jaspe, Inlaid, etc) bearing the same gauge designation, are now identical in thickness. This reduces to five the total number of gauges manufactured. The new standardization became effective on the part of all manufacturers as of July 1, 1934. It has been submitted to the proper departments of the United States Government, and the Committee of the Federal Specification Board concerned with linoleum has approved the new standardized gauges.

A printed table is available showing the weights and thicknesses now manufactured in the various linoleum classifications. Both old and new names and gauges are listed. This revised standard of gauges is submitted by the Linoleum and Felt Base Manufacturers Association.

M 3
COMPENSATED OR DIFFERENTIAL HUMIDITY CONTROL

Minneapolis-Honeywell Regulator Company now offers a compensated humidity control system which will accurately govern relative humidity at any desired differential between inside relative humidity and outside temperature. Thus, the variable factors in building construction such as insulation, single and double windows, storm sash, etc., are readily compensated for and at the same time relative humidity may be maintained at the highest point desirable for human comfort without risk of damage from condensation. This result is accomplished by the use of two instruments, the modulating or potentiometer type humidity controller shown here, operating in conjunction with an outside temperature controller of remote bulb type, also illustrated above. The humidity controller operates in normal fashion governing the supply of moisture at the desired relative humidity in accordance with the setting of the controller. The normal functions are performed until the outside temperature begins to drop. As it drops the remote bulb temperature controller, the bulb of which is outdoors, through its electrical connection with the humidity controller, acts as a limit control. In other words, as the outside temperature goes down the temperature controller affects the operation of the humidity controller.

M 4
NEW "H & H" CATALOGUE

Hart & Hegeman Division of the Arrow-Hart & Hegeman Electric Co. has released a new catalogue giving information on the complete line of "H & H" wiring devices.

TO OBTAIN FURTHER INFORMATION

about any products mentioned, write the index numbers in space below. For literature about products *advertised* in this issue, give name of the product and manufacturer. Return coupon to The Architectural Record, 119 West 40th Street, New York, N. Y.

. . . . . .

. . . . . .

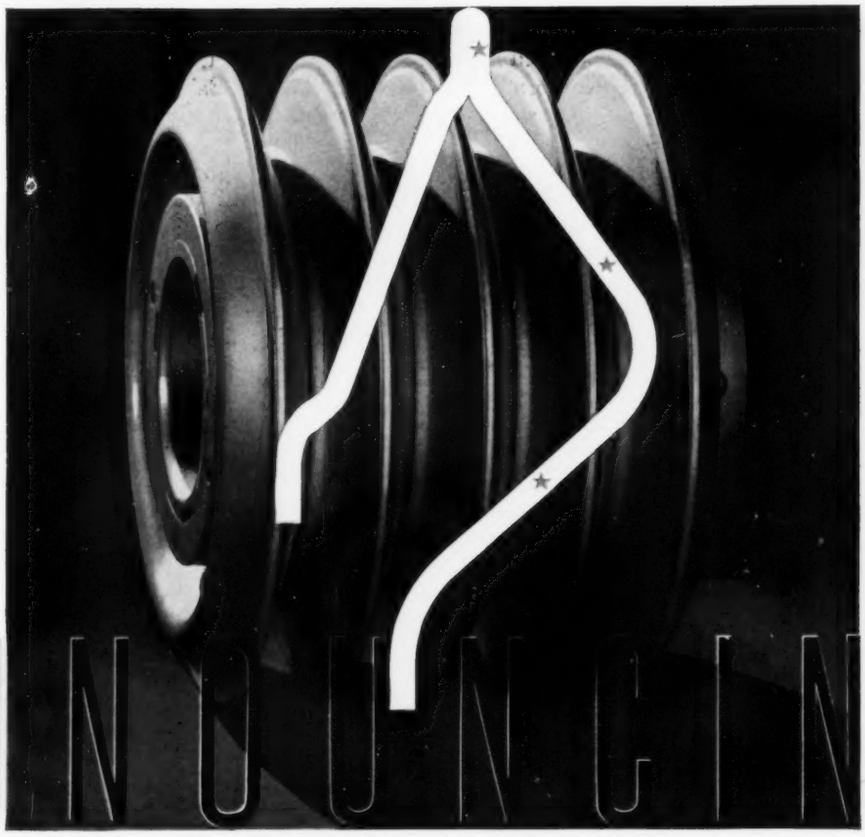
. . . . . .

Name _____

Position _____

Street _____

City and State _____



ANNOUNCING!

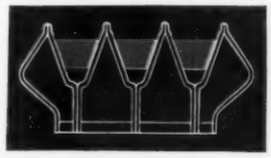
The new
DURO-BRACE TEXSTEEL SHEAVES

The Allis-Chalmers Manufacturing Company, originators of multiple V belt drives, now offers a new development in sheaves which will withstand the severest duty. • Bending of the outside plate is practically impossible with the new Duro-Brace Sheaves, for in the new design this vulnerable area is braced by a reinforcing convex steel plate, which increases its strength to so great a degree as to eliminate distortion, even under extreme overloads; thus giving a true running drive always. • Duro-Brace Texsteel Drives are 98.9% efficient . . . Require no belt dressing or lubrication . . . Are unaffected by moisture or dust . . . Are Vibrationless, Slipless, Silent, Light and Clean. • Mail us a card asking for Bulletin No. 2188 which sets forth the advantages which Duro-Brace Texsteel Drives offer you in all matters of power transmission, whether they are simple or complex.

★ ★ ★

Former Design: cross-section showing unsupported outside plate.

New Duro-Brace Design: cross-section showing outside plate braced by a convex reinforcing steel plate.

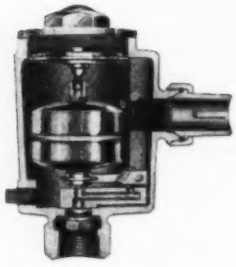


TEXROPE DRIVES

ORIGINATED BY
ALLIS-CHALMERS MANUFACTURING

ALLIS-CHALMERS
COMPANY • MILWAUKEE, WISCONSIN

M 5
FLOAT AND THERMOSTATIC DRIP VALVE



A trap is offered by J. P. Marsh Corporation for removal of air and condensation from short steam mains, branches or risers. It is especially desirable for installation on unit ventilators, small unit heaters or other equipment which may be subjected to freezing temperatures during periods when the heating system is not in operation. The outlet discharge valve is water-sealed at all times and the air vent is located in the Trap Bonnet. The thermostatic element screws directly into the trap body. Normally air is discharged through a port directly to the outlet connections of the trap. All working parts are easily accessible through the removable trap bonnet. Interior parts are of bronze and monel metal with exception of the float which is of seamless copper tested for a working pressure of 25 lbs. per square inch.

M 6
IMPROVEMENTS IN WINDOW MANUFACTURING

A plan to produce the Dalmo window with sash and frame complete and with hardware already installed and adjusted—ready for setting and glazing—is announced by the White Pine Sash Company, Spokane, Washington. The windows will be constructed and Dalmo hardware fitted in the White Pine Sash factories. The finished product will be delivered in cartons. Another announcement by this company states that a new automatic triple-sash window has been developed. All sash operate simultaneously by the motion of the lower sash. This lower sash disconnects automatically for independent operation or ventilation control and reconnects without use of the hand-operated clutches.

M 7
BAKELITE SYNTHETIC RESINS

A new booklet, "Integrity of Finishes," recently published by Bakelite Corporation describes qualities and characteristics of Bakelite Synthetic Resins which impart integrity to a paint product—resistance to sunlight and weathering, moisture resistance, chemical resistance, elasticity and its retention, and toughness. The booklet discusses these factors in relation to house paints, marine finishes, railway coatings, floor varnishes, furniture varnishes, anti-corrosive primers and finishing coats, and baking finishes.

M 8
VENTILATING AND EXHAUST FANS

Propellair Fans, as described in a brochure released by the manufacturer, are constructed on principles of aero-dynamics, propelling the air for both ventilating and exhausting purposes. A special type of construction exclusive with Propellair models is said to apply the principle of "streamlining" to air-flow, thus increasing the air delivery capacity of the fans with minimum power requirements. The manufacturer is Propellair, Inc., of Springfield, Ohio. The wide variety of models and sizes makes the service available wherever controlled movement of air is required.

M 9
SHEET IRON

In simple, non-technical language a booklet, titled Sheet Iron and designated as Bulletin 127, tells the step-by-step story of modern manufacture of sheet iron, tracing production from the ore mined to the final inspection of the completed sheet. It contains gauge tables and an interesting glossary of metallurgical terms, by Republic Steel Corporation.

SAVING SPACE

Because of its total freedom from leaks and replacements, Duriron may be installed within walls and ceilings and under floors.

DURIRON
ACID PROOF
DRAIN PIPE

THE DURIRON COMPANY, Inc.
404 N. Findlay Street
DAYTON, OHIO
See Our Catalog in Sweet's

When the "JOB" calls for the BEST

Specify STREAMLINE

● The STREAMLINE Fitting was the first solder type fitting utilizing the phenomena of capillary attraction to be successfully put upon the market, and it incorporates many advantages that no other solder type fitting possesses.

During the last four years STREAMLINE Fittings have been specified and used successfully in every type of building construction and in thousands of installations throughout the United States and Canada.

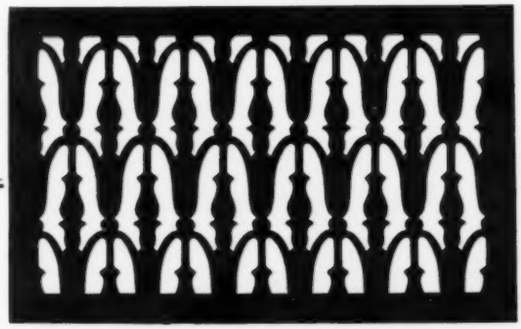
Under normal conditions they assure your client a non-rusting, non-clogging, trouble-free plumbing or heating system as long as the building stands. Absolute safety in concealed work, maximum efficiency in heat transference, conservation of valuable space and freedom from the harmful effects of vibration are but a few of the many advantages of this product.

STREAMLINE Products in full range are described in Sweet's Architectural Catalog, Section D. Send for A. I. A. File 29 B4 or a list containing hundreds of outstanding installations and the architects who have specified them.

STREAMLINE PIPE AND FITTINGS
PORT HURON, **CO.** MICHIGAN
DIVISION OF MUELLER BRASS CO.

A NEW GRILLE BY HENDRICK—

The URN



To those interested in distinctive grilles, Hendrick offers a number of unusual and pleasing designs. The Urn, illustrated above, is typical. This grille is furnished in steel, aluminum, bronze, stainless steel or brass.

Have you a copy of the Hendrick handbook "Grilles"—64 pages of useful data on perforated metal grilles . . . complete information concerning perforations, open areas, tables of weights of sheet metals, etc. Write for a copy.

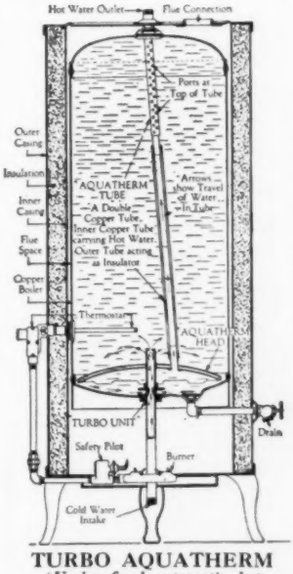
HENDRICK MFG. CO.

19 Dundaff Street, Carbondale, Pa.

Offices and Representatives in principal cities. See 'phone book. Manufacturers of Mitco Open Steel Flooring, Mitco Shur-Site Treads, and Mitco Armorgrids, Hendrick Perforated Metals and Screens; Elevator Buckets; Light and Heavy Steel Plate Construction.

KEEP ABREAST OF THE TIMES!

DAHLQUIST COPPER BOILERS fitted with the TURBO and AQUATHERM are as far advanced over other hot water boilers as the new stream line trains are over the old wood burners.



TURBO AQUATHERM
(Under fired automatic hot water storage system)

LOOK INTO THIS!

DAHLQUIST BOILERS
covered by U. S. Patent
Nos. 15065050-1648043-1762215

Have the only fundamental improvements made in hot water storage tanks during the past 40 years.

These new inventions by Theodore W. Dahlquist are supplied in all DAHLQUIST COPPER BOILERS and absolutely stop sediment from forming on the bottom of the boiler. No need to drain a Dahlquist boiler every few weeks. The TURBO prevents sediment from forming — keeps the hot water always crystal clear, fit for drinking — prevents costly burnouts. The AQUATHERM reduces fuel cost 50%. Whether your need is for a common range boiler, an automatic hot water storage system or a commercial heavy pressure storage boiler, learn more about these remarkable inventions before you order.

Write for descriptive catalog

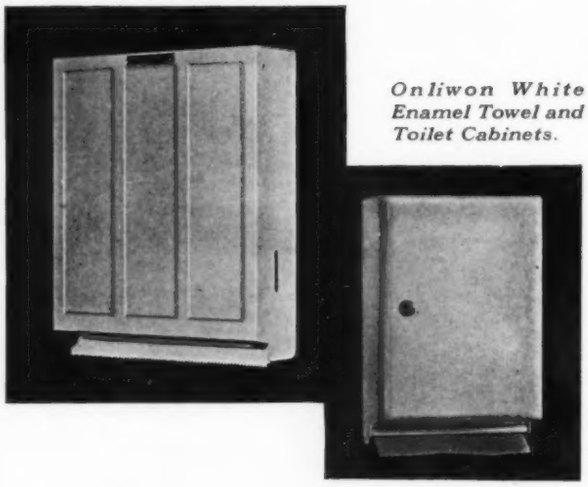
2000 Gal. Boiler

WE MAKE ALL TYPES OF COPPER BOILERS

DAHLQUIST MFG. COMPANY

70 West 3d Street — So. Boston, Mass.

HERE . . .



Onliwon White Enamel Towel and Toilet Cabinets.

is the specification that satisfies both client and architect

Architects usually have to be wary about accepting ideas from laymen. But here's a specification on which they are like-minded—the hygienic Onliwon Cabinets for the sanitary A.P.W. Onliwon Paper Towels and Toilet Tissue.

The layman wants Onliwon Cabinets because he insists on using A.P.W. Onliwon Paper Towels and Toilet Tissue. And the architect knows that in the Onliwon line he is sure to find the right cabinet for the purpose at hand. They're made for washrooms in offices, factories, hotels, hospitals, schools or churches. A complete, intelligent assortment. Recessed and surface, metal finish and solid porcelain.

Examine our catalogue. It gives complete details on all Onliwon Cabinets. Just mail the coupon.

NRA

A.P.W.

AR-12-34

A. P. W. PAPER CO., ALBANY, N. Y.
Please send me the latest and complete catalogue of A. P. W. Cabinets and Fixtures.

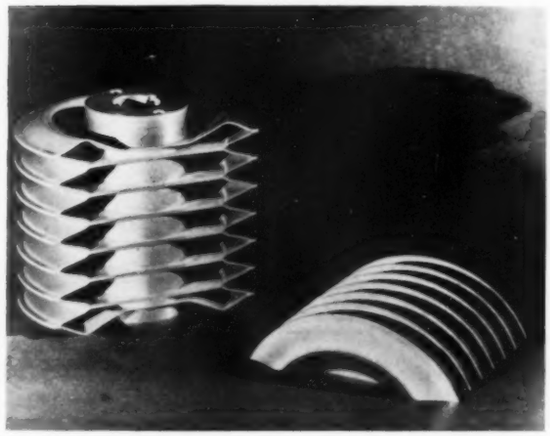
Name .....

Address .....

City ..... *State* .....

M 10
G-E WORKSHOP

A new General Electric product, the G-E Workshop, is now being marketed. The new Workshop is a compact machine designed to do all sorts of operations in wood and the softer metals. Intended primarily for the home workshop, it also has many professional uses. The machine, including all attachments, necessary tools and steel cabinet to support it, is packed in a box about a foot square and 38 inches long. Ready for use it occupies a floor space 18 inches by 38 inches. It can be set up ready for operation in half an hour. The variety of things that can be made with the machine is almost unlimited. Attachments make it possible to saw and to turn wood, brass and aluminum; sand flat surfaces and contours; drill accurately placed dowel holes; cut rabbets and grooves; make mortises; grind; buff; and do numerous other operations.



M 11
A NEW REINFORCED SHEAVE

Under the name of Duro-Brace Texsteel Sheave, the Texrope Division of the Allis-Chalmers Mfg. Co., is introducing a new reinforced steel sheave. The outside walls of sheaves sometimes bend under the strain of excessive overloads, with the result that they are thrown off true. The outside walls of the new Duro-Brace sheaves are reinforced by a convex steel plate, which strengthens these vulnerable areas to so great a degree as to practically eliminate the possibility of distortion, irrespective of the strains to which they are subjected. Welding at the rim and web, for additional strength, and the interior grid-type construction, for rigidity, which were advantageous features of the former designs are retained in the new Duro-Brace Texsteel Sheave.

Additional products announced by this company are (1) "Seal-Clad" squirrel-cage motors described as of open type construction, with permanent coil protection. Hard, smooth, Bakelite shields are sealed over the stator coils giving protection against metallic dust, grit, oil, moisture, mild acids and other agents injurious to insulation. They are built in

THE SURE WAY TO SATISFY CLIENTS ON HEATING

GILBARCO OIL HEAT

GILBARCO AUTOMATIC OIL HEAT UNIT

FOR STEAM OR HOT WATER SYSTEMS

Gilbarco Conditioned Warm Air Unit
Heats, filters, humidifies and circulates a steady, uniform flow of healthful air.

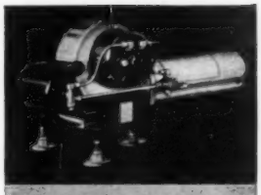
THREE BASIC REASONS WHY GILBARCO APPEALS TO TECHNICAL MEN

1. **SIMPLE, SOUND DESIGN**—No "trick features"—no gadgets, Gilbarco stresses essentials—tried and proved engineering—reliable manufacture—complete inspection and testing.

2. **BUILT TO STAND UP**—Gilbarco builds its oil heat equipment for strength, ruggedness and durability.

3. **SERVICED RIGHT**—By a strong, reliable dealer and factory organization of carefully trained men.

Five Extra Features: 1—Patented Flexible Flame • 2—Patented Heat Diffuser • 3—Gilbarco Air Control • 4—Perfected Radio Interference Eliminator • 5—Patented Draft Regulator.



GILBARCO OIL BURNERS
Made in four sizes to meet every house heating requirement. All models burn low-cost heating oil and operate with a high degree of economy.

GILBERT & BARKER MANUFACTURING CO.
SPRINGFIELD *Established* 1865 MASS.

Oldest and Largest Concern in the Oil Burning Field

◆

The coupon below brings you a copy of our "Architects and Engineers Manual."

Gilbert & Barker Mfg. Co., Springfield, Mass. AR-52
Send me without charge your 24-page "Architects & Engineers Manual" and literature on Gilbarco Oil Heat.
Name.....
Address.....
City.....State.....

The 'Little Red'

In this one-room cottage at Saranac Lake, N. Y., called "Little Red," the modern treatment of tuberculosis began in 1885 because Dr. E. L. Trudeau discovered the value of rest in curing tuberculosis » » Progress has been made in the fight against tuberculosis, but it still kills more persons between 15 and 45 than any other disease » » Help conquer it by using Christmas Seals on your holiday letters and packages.

The National, State and Local Tuberculosis Associations of the United States

BUY CHRISTMAS SEALS

MODERNIZE

with the

CUTLER MAIL CHUTE

Over fifty years of experience and improvement in Manufacturing Equipment, Product and Service have made the Cutler Mail Chute an outstanding *Hall-mark* of progressive management in office buildings, hotels and apartments.

It is an indispensable feature of the equipment of Public Buildings.

Information and details furnished on request.

CUTLER MAIL CHUTE CO.
General Offices and Factory, ROCHESTER, N.Y.

175 of the leading roofers of the country have just spent several thousand dollars of their own money to send out warnings to 100,000 persons against the use of smooth-top roofings on flat decks.

Those roofers are equipped to furnish either smooth-top roofings or coal tar pitch roofings. But the failures of smooth-top roofings have been so numerous and so serious in the past year that the roofers have taken this step to protect their own business reputations.

They tell you, in all sincerity, to use coal tar pitch on any flat roof. There is no better coal tar roofing pitch than Koppers Old Style Pitch.

KOPPERS PRODUCTS COMPANY
KOPPERS BUILDING, PITTSBURGH
Birmingham Boston Chicago New York
Providence St. Louis

100,000 DON'TS

FOR ROOFING OR RE-ROOFING:
NRA WE DO OUR PART
KOPPERS
KOPPERS OLD STYLE PITCH
KOPPERS TAR SATURATED RAG FELT
A GRAVEL OR SLAG SURFACE

OTHER KOPPERS PRODUCTS:
Roofing; Membrane Waterproofing; Dampproofing; Tar Aluminum Paints; Plaster Bond Paints; Tarmac Road Tar for Streets, Pavements, Drives, Highways

ratings up to 25 hp. 1,800 r. p. m. and suited to a much broader range of application than the ordinary open motor. (2) Geared-Head Turbo-Blower, a new, compact Centrifugal Compressor making use of a gearmotor. By using the gearmotor for speed increase, the blower can run at higher than motor speeds, thus reducing dimensions and improving performance. Pressures from .75 lb. G. to 3.0 lb. G. are developed, the volumetric capacities corresponding to motor outputs from 3 to 30 hp. The units have application for foundry cupola blowing, oil-fired furnaces, pneumatic conveying, agitation and aeration, and for similar moderately low-pressure air or gas supply services.

TRADE ANNOUNCEMENTS

GENERAL ELECTRIC COMPANY

At a meeting of the board of directors of the General Electric Company on October 26, 1934, Francis D. Bartow was elected a member of the board.

KOHNSTAMM HEADS WESTINGHOUSE LIGHTING

F. R. Kohnstamm has been appointed Manager of the Lighting Division of the Westinghouse Electric and Manufacturing Company. Mr. Kohnstamm will have supervision over lighting sales, engineering, and manufacturing.

ROBERT MITCHELL MANUFACTURING CO.

The Robert Mitchell Manufacturing Co. has acquired the patent rights, good will, trade name and exclusive rights to manufacture all the products formerly made by the Compound & Pyrono Door Company of St. Joseph, Michigan. These products are Compound Key Veneered Wood Doors, Pyrono Process Fire Proof Doors and Trim, and the Tri-mount Sound Proof Doors. All of these products are well known and in wide use.

The Robert Mitchell Manufacturing Co. announces that they are in a position to give service to architects and contractors throughout the United States. Their offices are located in New York, Philiadelphia, Baltimore, Pittsburgh, Detroit, Chicago, St. Louis, Cleveland, and Nashville.

THE DURIRON COMPANY, INC.

Mr. Wm. E. Hall, President of The Duriron Company, Inc., of Dayton, Ohio, has announced the appointment of M. L. Bettcher, formerly General Superintendent, to the position of General Manager, succeeding Dudley H. Miller, who becomes Executive Vice-President. Additional changes in personnel are also announced as follows: N. E. Philpot, formerly manager of the Chicago Office assumes charge of the New York Office, succeeding W. E. Pratt, resigned. Col. M. W. Smith, formerly manager at Buffalo, heads the Chicago Office. W. A. Watkins transferred from the General Sales Department at Dayton to Buffalo as manager.

Another Feature of
RIC-WIL *Conduit Systems:*

Independent Pipe Supports

Ric-wiL Pipe Supports of cast iron carry the pipes independent of the conduit. Snap into place, require no special concrete work, and take up little space inside conduit. Rust-proof and strong enough to stand the contraction and expansion of pipes. Write for Bulletin 32.

See our Catalog in Sweet's

THE RIG-WIL CO., 1562 Union Trust Bldg., Cleveland

Agents in principal cities

REGISTERED IN U. S. PATENT OFFICE

RIC-WIL

CONDUIT SYSTEMS FOR UNDERGROUND STEAM PIPES

IRON PICKET **FENCES** CHAINLINK WIRE

TO architects we offer a free advisory and consultation service, and, when invited to do so, we will cooperate in designing work, preparing estimates and layouts to those interested.

Chain Link Wire Fence of Copper Bearing Steel Galvanized after Fabrication. Available in various heights.

Plain and Ornamental Iron Fence and Gates. Over 300 standard designs or special designing service on projects of consequence.

The STEWART IRON WORKS CO., Inc.
240 Stewart Block, Cincinnati, Ohio

Stewart IRON and WIRE **FENCES**

DAHLQUIST TURBO *Equipped*

Dahlquist Turbo Super Aquatherm on Underfire Hot Water Storage System

DO YOU KNOW!

THAT Dahlquist Copper Boilers fitted with the TURBO and AQUATHERM are as far advanced over other hot water heaters as the new bullet trains are over the old wood burners.

They have the only fundamental improvement made in hot water storage tanks during the past 40 years.

HERE IS PROOF

Cost of Gas Cut in Half!

The owner of this attractive home writes in parts—"Your 30 gallon TURBO replaced a nationally known gas water heater of same capacity which did not give satisfaction; never had sufficient supply of hot water; and the gas bills averaged between $12 and $13 per month. The first month after the installation of the Dahlquist Turbo Storage System, the bill was cut in half, being only $6.80. Your patented storage heater is actually getting better and more efficient—my last month's bill was only $5.80. This more than fulfills my expectations."

Learn about this modern automatic hot water storage system;—uses 50% less gas, gives crystal clear hot water day and night.

Write for Particulars

DAHLQUIST MFG. COMPANY

70 WEST 3rd ST. SO. BOSTON, MASS.

EVANS "Vanishing Door" WARDROBE

•

Class X

equipped with either "Jamb" type (as illustrated) or "Floor" type hinges. This is Class P wardrobe if made with flush doors.

CLASSROOM WARDROBES

High in Quality—Low in Cost

Made to set in a recess flush with the wall. Plaster back, ends and ceiling. No partitions, but with mullions between pairs of doors. Blackboards if required. Five-shelf bookcase instead of clothing equipment at no extra charge when desired.

The "Vanishing Door" hinges on which the doors are hung are made with double pivoted arms and swing the doors back into the wardrobe entirely out of the way. Simple—trouble-proof—and last as long as the building.

Wardrobes are furnished complete in the knock-down, with all woodwork cut to size, and only need to be nailed in place. The hinges are easier to put on than common butt hinges. The entire cost of installation is small.

We make many other types of school wardrobes, fully illustrated and described in 1934 *Sweet's, Volume C, pages* 656-663.

W. L. EVANS

WASHINGTON, INDIANA, U. S. A.

1906

MODERN CATALOGING

Published Monthly by Sweet's CATALOG SERVICE
Division of F. W. Dodge Corporation

1934

Volume 1 DECEMBER, 1934 Number 7

BULLETIN BOARD

"F.H.A., Title II is likely to take effect slowly. A new system of lending and of insuring loans requires time to get organized."

A diller, a dollar
Don't raise such a holler.
What makes you growl so soon?
You can't apply at ten o'clock
And get your loan at noon.

* * *

Vicious Circle

In many European cities there are strict regulations requiring that all new construction harmonize and blend with the old, especially facades. The result is constant imitation in building styles and in the development of new products and materials (metals that look like wood, etc.). And now, with all the new fronts resembling the old, comes the problem of modernization whereby old fronts must be made to look like the new fronts which were once made to look like the old—oh, well, let's skip it!

* * *

Jack Sprat was busted flat;
His house was under lien.
He refinanced his mortgages
And licked his problem clean!

* * *

MacTavish: "There's a fine building for ye. What dae ye think o' it?"

American (visiting Scotland): "Say, that's nothing. We've got hundreds like that, but bigger and better."

MacTavish: "Ay, I expect ye have. That's an asylum."

Architects
What's this we hear about you?

IT'S a poor month in which there fails to be published an essay on your professional peculiarities, addressed to those who seek your cooperation in the sale of their products.

We read that although you have many of the characteristics of other normal humans, you are in some respects, er—different. You are dominated by your artistic temperament and you cannot be reached except through your aesthetic sensibilities.

Catalogs and other descriptive printed matter intended for your use must have a certain air; the elements entering into their design must be selected on the basis of their artistic appeal; the format must be such that as you fall under its spell, you will recognize in its creator a kindred spirit. Inferentially, your emotional response will be followed in due course by a specification in favor of the product thus brought to your attention.

There may be something in all this, but our view of the matter is more mundane. We see, against your artistic background, a business man exchanging specialized knowledge for "other valuable consideration." We see the necessity for your keeping up to date on current developments in building products. We see the unhappy result of hundreds of individual attempts by manufacturers to keep this information before you. And we see in all these things an opportunity for coordination of effort which takes form each year in Sweet's Catalog File.

Certainly there can be no just criticism of pleasing and tasteful dress in a catalog, but are we not right when we tell manufacturers that, in rating desirable qualities in catalogs, you place constant accessibility above mere form?

"That number has been changed, Sir!"

WHEN that comes to you from the voice with a smile, you often discover that you had been consulting last year's phone book. But the mistake is rectified with the loss of only a few minutes.

It's a different matter when you consult last year's catalogs

for details or specification data. "Wrong numbers," once they get into your plans and specifications, spread trouble like a contagious disease.

Soon your office will receive a new, up-to-date file of manufacturers' catalogs—Sweet's Catalog File for 1935—which will replace the old 1934 file. Important changes have been made in nearly every manufacturer's catalog in Sweet's.

Distribution will be made about New Year's. That's the traditional time to clean house; to rid your office of the inevitable accumulation of obsolete catalogs and other data. Use the new Sweet's with the certain knowledge that every one of its hundreds of catalogs is up-to-date. Then you will be sure that what you select and specify is still being made; and your general contractors, who also will use the new Sweet's will know exactly what your specifications call for.

Use of the new Sweet's in your office will eliminate "wrong numbers."

To Do One Thing Well

VERSATILITY is a virtue or an impediment, according to the specific circumstances in which it exists. A four-scale slide rule may justly claim virtue in its versatility as compared with a two-scale rule; but what could be said for a combination slide rule, T-square, protractor and triangle? We can imagine what *would* be said:

"Take this gadget out and chuck it! It can do so many different things that it gets in its own way when it tries to do any one of them."

From time to time, features have been suggested for incorporation in Sweet's which on first thought, might seem to be useful accessories to this file of manufacturers' catalogs. The adoption of only a few would have made the Sweet's file a combination architects' and builders' manual, buyers' guide, year book, encyclopedia and general catchall.

Regardless of the value of any of these, considered independently as aids to the successful practice of architecture, there is good reason to believe that the attempt to make all of them available in a single unit would result only in confusion and tend to diminish the value of each.

The founders of Sweet's set out to do one thing; to build a file of manufacturers' catalogs which would be more comprehensive, convenient and useful than the files most architects had been able to build for themselves. And today Sweet's believes that the interests of all concerned will be better served by continuing along that line—doing one job and doing it well.

As We Were . . .

ROOFING—1906

It's the roofer, rather than the roofing, which engages our attention in this illustration from a manufacturer's catalog in Sweet's for 1906. Assured by the accompanying text that "Any intelligent workman can apply our roofing by following directions," we are led to wonder where we can find a twelve-foot Goliath, such as the one pictured here, who can manage the roll with one hand while he nonchalantly pushes in the nails with his bare thumb.

"We have used Sweet's for the past 24 years and it has always been good. But the recent trend to full catalogs is in the right direction and makes Sweet's even more valuable."

GEORGE L. MYLCHREEST,
MYLCHREEST & REYNOLDS,
Hartford, Conn.

"Fernico" is the name of a new alloy developed by *General Electric Co.*, Schenectady. Its expansion curve almost coincides with that of certain kinds of glass, making possible the successful fusion of the two.

* * *

Laying wood veneers on rounded surfaces has presented its problems. Now, according to *Arkitekten*, a Swedish magazine, there is a device perfected in Austria which accomplishes this effectively, and with minimum trouble. The rounded surface to be veneered is placed inside a rubber bag, as is also the veneer all ready to apply. The air is then pumped out of the bag, the resulting vacuum causing the bag to collapse and to exert a sustained pressure of the veneer against the rounded surface.

* * *

Before many years go by, the plant used in a home or building for refrigeration may be the same employed for heating, requiring only the mechanical additions necessary to throw the plant in "reverse." Reversed Cycle Refrigeration for house heating was discussed in *Electrical World* in 1932, and in a recent issue there appears an article by B. J. Homkes, Westinghouse refrigeration engineer, on "Hot Water from Reversed Refrigeration."

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For efficient use of Steel when loads are light

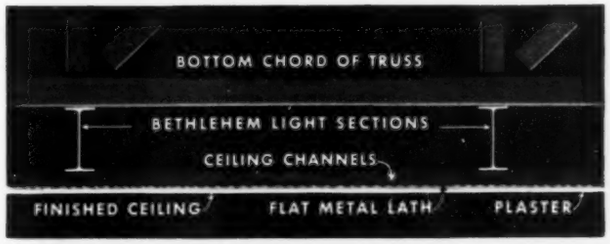
Bethlehem Light Sections were used for ceiling beams in the Infirmary Building, Pilgrim State Hospital, Brentwood, N. Y. State of New York, Department of Public Works—William E. Haugaard, *Commissioner of Architecture*. Thomas F. Farrell, *Chief Engineer*; McClintic-Marshall Corporation, *Fabricators*; Turner Construction Company, *General Contractors*.

FREQUENTLY it is desirable to have close spacing of structural members with relatively light loads which do not call for the amount of steel involved in the use of regular heavy sections. Bethlehem Light Sections are the solution of this problem. They fill out Bethlehem's line of heavier structural shapes, provide engineers with the opportunity to select steel that is right for the purpose. The need for compromise in design is eliminated.

Although floor construction is the major field of usefulness for Bethlehem Light Sections, they bring equal advantages when used as purlins in roof construction, as columns in upper stories where loads are lighter, as struts between columns. In fact, Bethlehem Light Sections may be used to advantage wherever it is desirable to combine rigidity with relatively close spacing of the structural members, the loads not justifying the use of heavier shapes.

Using Bethlehem Light Sections, beams can be spaced closely and still use only as much steel as the load dictates. Economical thickness of floor-slab, low dead load, follow.

Keep Bethlehem Light Sections in mind. They open the door to savings too important to pass up.

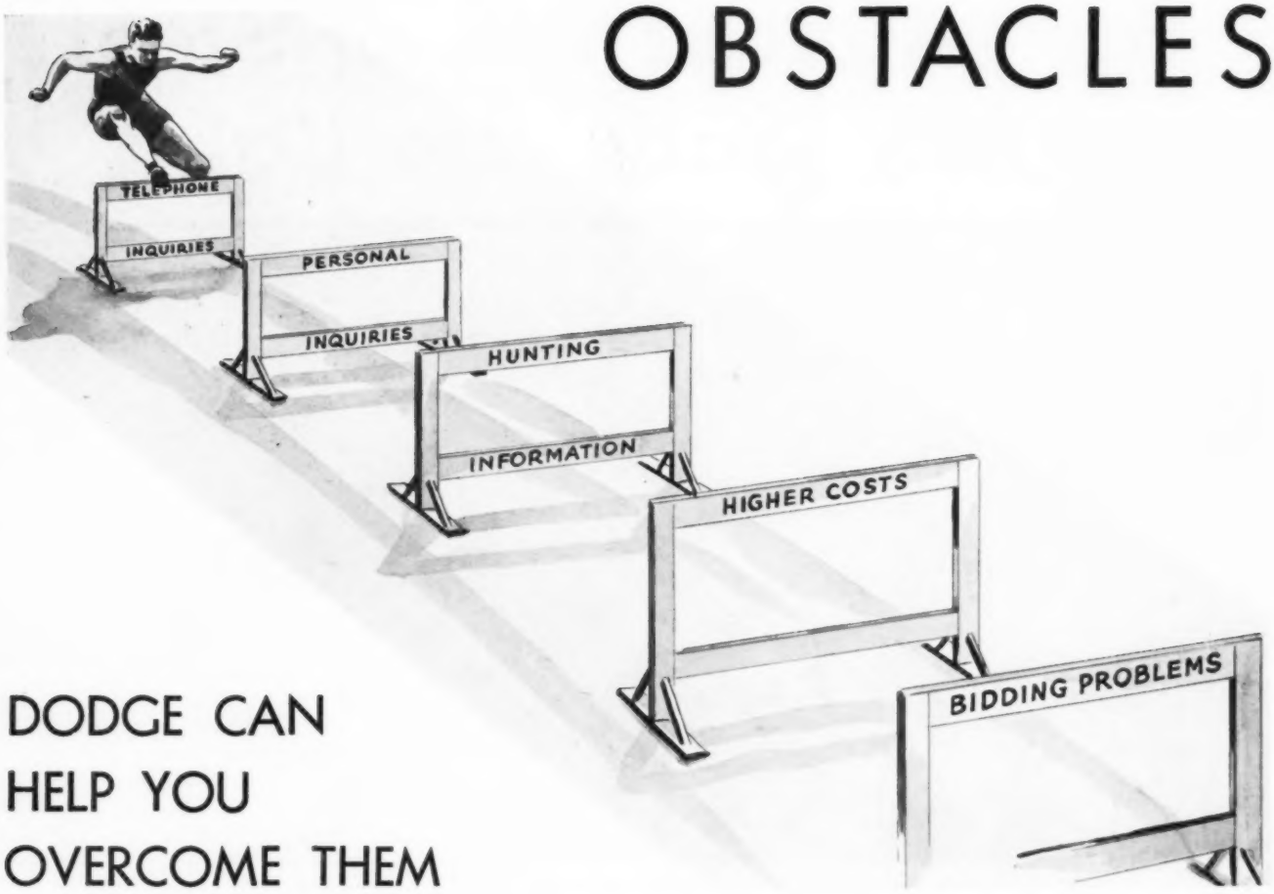


Typical section through ceiling of Infirmary Building, Pilgrim State Hospital, showing use of Bethlehem Light Sections

BETHLEHEM LIGHT SECTIONS

BETHLEHEM STEEL COMPANY, General Offices: BETHLEHEM, PA. *District Offices:* Atlanta, Baltimore, Boston, Bridgeport, Buffalo, Chicago, Cincinnati, Cleveland, Dallas, Detroit, Houston, Indianapolis, Kansas City, Milwaukee, New York, Philadelphia, Pittsburgh, St. Louis, St. Paul, Washington, Wilkes-Barre, York. *Pacific Coast Distributor:* Pacific Coast Steel Corporation, San Francisco, Seattle, Los Angeles, Portland, Honolulu. *Export Distributor:* Bethlehem Steel Export Corporation, New York.

OBSTACLES



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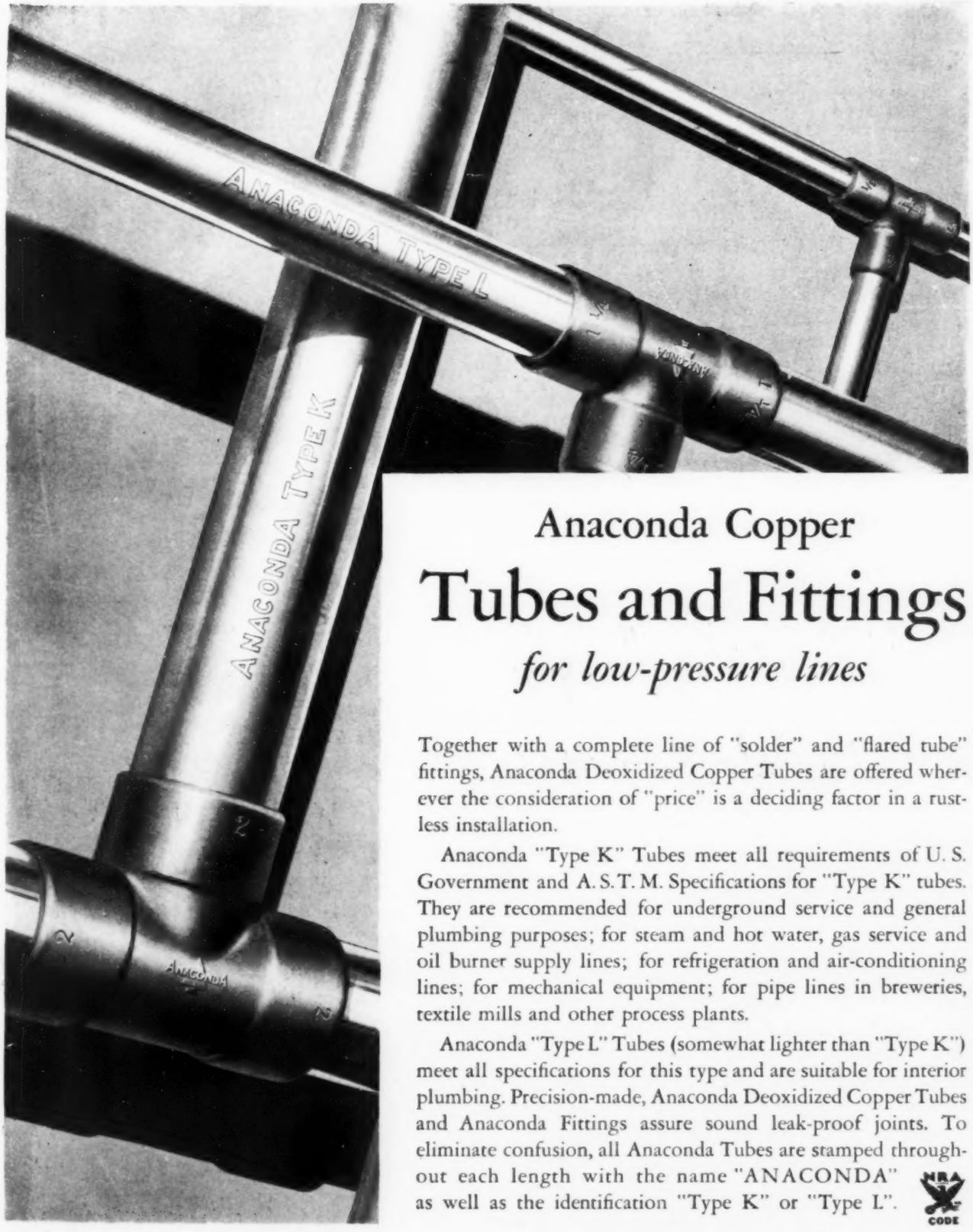

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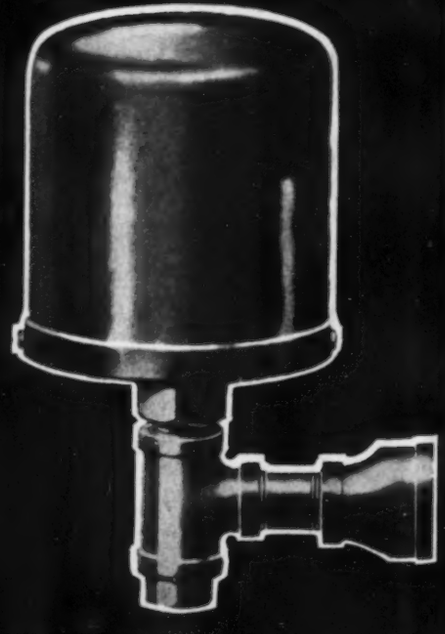

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